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ABSTRACT

Joint action by academic staff, students, and business concerns in the Paris region is reported in which the attitudes and preferences toward prospective improvements in the University of Paris' Higher Economic Degree (DES) are determined. The report is in six chapters and shows the stage the investigation had reached by September 1971. Course organization during 1970-71 and general study background are given, followed by reports of individual surveys by the three groups, and future prospects and further stages in the analysis. Obstacles to future decision-making procedures are reviewed. (LBH)

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STUDIES IN INSTITUTIONAL MANAGEMENT IN HIGHER EDUCATION
- UNIVERSITÉ DE PARIS - X - NANTERRE -

WAYS OF UPDATING THE "D.E.S." (HIGHER DEGREE) IN ECONOMICS

technical report

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ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT

Paris, 28 October 1971.
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Centre for Educational Research
and Innovation

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EVALUATION CONFERENCE ON THE
MANAGEMENT OF HIGHER EDUCATION ESTABLISHMENTS

(2-5 November 1971)

- UNIVERSITE DE PARIS-X - NANTERRE -

WAYS OF UPDATING THE "D.E.S." (HIGHER DEGREE) IN ECONOMICS

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This report from the Economics Teaching and Research Unit (Unité d'Enseignement et de Recherche - "U.E.R." - de Sciences Economiques) of Paris-X University Nanterre is a joint project on which academic staff, students and business concerns in the Paris region have worked together with a U.E.R. staff team in investigating the attitudes and preferences of all three groups towards prospective improvements in the University's Higher Economics Degree, the Diplôme d'Etudes Supérieures de Sciences Économiques, or "D.E.S.".

The report is in six chapters and it shows the stage the investigation had reached by September 1971. Chapters I and II give respectively an account of the way in which courses at the Paris-X University Economics U.E.R. had been organised during 1970-71, and a general background to the study. The three following chapters cover the individual surveys among each of the three groups concerned - students, academic staff and business concerns in the Paris region; the sixth and last chapter discusses future prospects and further stages in the analysis. All six have been written, at the cost of some repetition, in such a way as to enable a busy reader to confine himself to the chapter or chapters in which he is most interested.

The Centre for Educational Research and Innovation (CERI) takes this opportunity of expressing its thanks to the research team led by Professor Guy Terny, and to all those staff members and students at Paris-X who kindly agreed to co-operate by allowing themselves to be interviewed and by completing the very long questionnaires, thus contributing a total of more than 700 hours of their time.

The Company Shell S.A. Française not only gave financial support to this project but helped with the survey of industrial and commercial firms by arranging contacts and carrying out various preliminary tests on the questionnaire addressed to the firms. Professor René Rémond, Président of Paris-X University Nanterre has been kind enough to give his support both to the CERI Programme on the Management of Higher Education Establishments generally and to the present survey in particular.

CONTENTS

		Page
Chapter I.	How economics courses were organised at Paris-X University, Nanterre, in 1970/1971 . . .	9
	Introduction	9
	I. Content of courses	10
	A. 1st cycle	10
	B. Second cycle	11
	C. Doctoral	13
	a) The Doctorat d'Etat	13
	b) The Doctorat de Spécialité	14
	II. Testing knowledge and conditions of admission	15
	1. Knowledge-testing methods generally . .	15
	2. Methods applied at D.E.S. level	16
	III. Characteristics of the teaching at Nanterre - intentions and results	17
	A. In relation to student appraisal procedures	18
	B. In relation to organisation and teaching methods	19
	C. In relation to course content	20
Chapter II.	The Paris-X University Economics U.E.R. survey	23
	I. Summary of the main stages in the definition of the research project for the Paris-X University Nanterre Economics U.E.R.	23
	II. Aims and methodological approach	25
	A. Aims	26
	B. Methodology	28
	III. Unique features of the Paris-X survey . . .	30

Page

Chapter III. Views, attitudes and preferences of students at Paris-X University Nanterre towards the higher degree in Economics (the D.E.S.) 33

I. The groups covered, collection and processing of data 33

A. Students 33

B. Collection of information from fourth-year and D.E.S. students 34

II. Preferences and views of the fourth-year Licence students towards the D.E.S. 38

A. General information on the fourth-year students 39

B. The Economics Licence as assessed by the fourth-year students 42

C. How much did fourth-year students know about the Economics D.E.S.? . . . 46

D. Why fourth-year students had decided to stop or to continue studying Economics at university 48

E. What should be the objective (or objectives) of the D.E.S. in relation to the present Licence in Economics . . 56

F. Entry criteria and educational routes to the D.E.S. 60

G. Course content of the D.E.S. in Economics 64

H. Teaching methods and knowledge-testing 70

I. Miscellaneous questions related to the organisation of a D.E.S. 86

III. The D.E.S. in the light of a qualitative analysis of the views of students at that time reading for it at Paris-X University Nanterre 90

A. General information about the D.E.S. students 90

B. Attitudes towards the present D.E.S. . 92

C. The "ideal" D.E.S. 93

Chapter IV. The survey of the teaching staff of the Paris-X University Economics U.E.R. 99

I. How the questionnaire was compiled 99

II. The staff questionnaire 99

III. Progress to date 100

Page

Chapter V. First results from the survey among prospective employers in the Paris region 101

Introduction 101

I. Stages in conducting the survey 101

A. The qualitative stage 101

B. The quantitative stage 102

II. How the survey was conducted and how the replies were utilised 102

A. The sample 102

B. Implementation of the survey 103

C. Utilisation of the replies 103

III. Major findings 103

A. Current attitudes towards the D.E.S. . . 103

B. The ideal D.E.S. 105

C. Relations between university and industry 106

Chapter VI. Future prospects and later stages in the analysis 109

I. Work currently in hand 109

II. Subsequent operations 110

A. Factor analysis 110

B. Model 110

C. Analysing the costs 111

D. Decision-making procedures 111

Annex 113

CHAPTER I

HOW ECONOMICS COURSES WERE ORGANISED AT PARIS-X UNIVERSITY, NANTERRE, IN 1970/1971(1)

INTRODUCTION

The teaching of Economics at Nanterre follows the general pattern laid down by the French Ministry of Education: Economics has been a separate subject-area from Law (at first only partly) since 1959/1960. In the early years the separation was only partial because year 1 of the course leading to the first degree - the 'Licence' in Economics - shared four of its six subjects with the Law Licence and contained only two relating exclusively to Economics. This is consequently a relatively new discipline, still feeling its way at the level of the Licence and all the more so at postgraduate level. Doctorate-level degrees in Economics could be awarded before 1965 but it was only from that year onwards that students with a Licence in Economics as their first degree began to prepare for them.

At Nanterre the teaching of Economics - and of Law as well - started in the academic year 1966/1967 with a first-year course. The year 1970/1971 which has just ended, and with which the account in this chapter will be concerned, was consequently the first in which this university offered a higher degree in Economics - referred to as the "D.E.S.", (for Diplôme d'Etudes Supérieures, see Chap.I,C, for details). This means that 1971/1972 will be the first year in which students who have gained the D.E.S. will be able to start reading for a Doctorat d'Etat with members of the staff of the Teaching and Research Unit ("U.E.R.", for Unité d'Enseignement et de Recherche, the basic unit in university organisation following the Loi d'Orientation de l'Enseignement Supérieur of 12 November 1968).

By statute, Economics was being taught in a combined faculty with Law up to the end of 1970; but it is now taught in a separate U.E.R. which forms part of Paris-X University in its own right.

The course leading to the Licence in Economics takes four years, or two 'cycles'. Years 1 and 2 of the Licence course, which constitute the first cycle, are designed as a common core of studies giving a broad grounding in the basic concepts and analytical tools. Something

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(1) This chapter is intended mainly for the reader who may not be familiar with the way in which Economics courses are organised at a French university; after outlining the general practice, it describes those features of the courses at Paris-X Nanterre which are to some extent original.

like a quarter of the courses to be taken can be chosen from pluri-disciplinary subjects outside Economics. A diploma is awarded to students successfully completing their second, the University General Economics Diploma ("D.U.E.F.G.", for "Diplôme Universitaire d'Etudes Economiques Générales"). This is mainly of interest to students not going on to take the Licence.

In 1970/1971 there were 1,038 first-year students, 623 second-year, 642 third-year and 535 in their fourth year; while 160 were reading for the Higher Economics Degree - the D.E.S.

I. CONTENT OF COURSES

There have been some slight changes in the subjects offered in 1971/1972 and those offered in 1970/1971.

A - 1st CYCLE

- Year 1

a) The main subject, general Economic Theory, covers the basic concepts and how to use them. This course is run concurrently by two full lecturers who, with their assistant lecturers, form two separate pedagogical teams. This arrangement is in accordance with the general spirit of the U.E.R. - an institution in which "differing and even contradictory points of view are unemotionally and systematically presented so that they can be debated scientifically" (Foreword to the Paris-X University 1970/1971 Economics Licence syllabus, by André BABEAU).

b) The second basic subject is Mathematics and Statistics which also lasts two years and is given by a number of lecturers concurrently.

c) The third subject is Economic History. This takes two years and during year 1 is given concurrently by two lecturers.

d) In the fourth subject, Current Issues in Economics, current economic problems are dealt with in depth at each of a series of lectures.

e) The fifth subject is Law of Private Economic Activities - Droit privé économique - for which students are permitted to substitute a different subject of their choice.

- Year 2

a) and b) The basic subjects of Economic Theory and Mathematics and Statistics continue as indicated above.

c) The third subject is the Economics of Finance.

d) The fourth subject is Private Accountancy.

e) The fifth is Social Economics.

f) The sixth is Economic History (2nd year).

g) The seventh subject, Law of Public Economic Activities - Droit publique économique - may be replaced by another subject at choice.

B - SECOND CYCLE

From the beginning of the second cycle students may start to specialise, by taking one of the four following:

- Economics of the Firm
- Public Sector Economics and Planning
- International Economic Relations and Development
- Econometrics

But specialisation becomes much more intense by the fourth year, when the student takes five optional subjects (plus two from the common core), while in the third year he will have taken four subjects of each type.

- Year 3

Firstly, there are five subjects from what is being called the 'common core', four of which are compulsory. These are:

- Economic Dynamics
- Mathematics and Statistics
- International Economics
- Data processing
- Law of Private Economic Activities (optional)

He has also to take one of the following pairs of subjects depending on the specialisation he has chosen above:

a) Economics of the Firm

. Microeconomics
. Advanced accountancy

b) The National Economy

. Economic accounting
. National accounts

c) International Economic Relations

. International trade structure
. International monetary problems

d) Econometrics

. Linear programming
. Sampling and adjustment techniques

- Year 4

First, there are four common core subjects:

- History of economic thought
- Theory and models of economic policy
- Financial Economics
- Labour Law (optional)

and four further subjects according to the specialisation chosen:

a) Economics of the Firm

. Management data processing
. Financial and budgetary management
. Organisation and personnel aspects of the enterprise
. Selling and market research

b) The National Economy

. Economics of the public enterprise
. Land use economics and regional planning
. Economic systems compared
. Budgetary analysis and choice-rationalisation systems

c) International economics

. The European Economy
. External trade forecasting
. Economic systems compared
. The econometrics of development

d) Econometrics

. Mathematical methods I and II
. Social Science methods
. Econometrics

These four specialisations, any one of which the student could choose, were offered on a completely equal basis, at first by the Faculty of Law and Economics and subsequently by the Economics U.E.R. However, the fact that students were not in a position to choose among the various Economics courses in the Paris area at the Licence level, together with the geographical area of student recruitment for the Faculty at Nanterre, account for the proportions of students who took the various options (in, for example, their entries for the first examination) shown in the following table:

	Year 3 68/69	Year 3 69/70	Year 4 69/70
International Economics	139	133	136
Public Economics	99	32	79
Econometrics	280	243	239
Economics of the Firm	311	336	305
TOTAL	829	744	759

C - DOCTORAT

Two different kinds of Doctorate in Economics can be taken by students who have completed their Licence or hold equivalent qualifications: the Doctorat d'Etat and the Doctorat de Spécialité. Both were instituted at Nanterre in 1970.

1. The Doctorat d'Etat

To obtain the Doctorat d'Etat students start, once they have gained their Licence, by reading for the higher degree in Economics (the D.E.S.) with which this survey is concerned. Once they have taken the D.E.S. they may begin work on preparing a doctoral thesis in Economics. But the D.E.S. is a degree which may very well be sought in its own right.

a) The Diplome d'Etudes Supérieures (Higher Degree in Economics - "D.E.S.")

This degree is awarded at the Paris-X University at Nanterre to those passing tests in four 'seminars', each seminar corresponding to one of the subjects taught. The word 'seminar' is only used in relation to the D.E.S., where it connotes a smaller number of students than at first-degree level (around 20 is sometimes regarded as ideal) and suggests working methods directed as closely as possible towards research.

The seminars are of two kinds - training seminars and research seminars. Training seminars provide a comprehensive revision of basic concepts in a particular field of economic analysis, and of the mathematical and statistical techniques involved. Research seminars are, from the student's viewpoint, of two kinds. The one on which he decides to write his dissertation becomes his "major" research seminar. The two others are called "minor" research seminars. A research seminar is not, in itself, either minor or major since some of the students taking it will have chosen it for their dissertation while others will not.

The training seminars are based upon the following areas of economic analysis:

- Microeconomic analysis
- Macroeconomic analysis
- Economic methodology and anthropology

Research seminar subjects are as follows:

- Macroeconomic growth analysis
- Monetary conditions for economic development
- Long-term macroeconomic forecasting
- Unconventional paths to economic development
- Theoretical and econometric problems of savings and consumption
- Development financing
- Marxism
- Theory of production
- Economics of land use
- Company management and decision programming
- Mathematical economics
- Social planning methods
- Finance and payments planning
- Data processing for management
- Industrial economics
- Economic epistemology
- Food and agricultural economics
- Economy of Europe
- Introduction to economic anthropology
- Econometrics and political economics
- Advanced marketing concepts
- Economic analysis and decision-procedures in the public sector (Rationalisation of Budget Choices - "R.B.C.")
- Introduction to education economics
- Inflation and the international monetary system
- Planning and development in the Soviet economy
- Mathematical methods in the social sciences
- The multinational corporation

b) <u>The thesis</u>

Having obtained their D.E.S., students wishing to write the thesis for a Doctorat d'Etat choose a director of studies from among the staff of professorial rank in the Economics Department; the director guides them in their work and decides at what point they have enough material to write and defend a thesis.

Members of the Nanterre staff have already supervised State Economics theses for students who had obtained their D.E.S. at other universities. However from 1971-1972 they will on occasion be supervising students holding the Paris-X University D.E.S.

2. <u>The Doctorat de Spécialité</u>

This has been instituted in specific specialist areas decided upon by the Ministry of Education, and is awarded by the various universities. The Arrêté of 16 July 1970 authorised the Economics U.E.R. at Paris-X University Nanterre to confer the Doctorat de Spécialité in the following areas:

. Economic psychology and sociology
. The social sciences of labour
. Development economics
. Economy of Europe
. Applied mathematics in economics
. Health economics

The student is required to choose as his supervisor a member of the Nanterre Economics U.E.R. staff specialising in the same area as the area in which he is taking his doctorate, and to prepare a thesis under his supervision on a topic falling within that area.

Students may defend their thesis a minimum of two years after entering. For the academic year 1970/1971 - the first in which this doctorate was instituted at Nanterre - eight students have enrolled for it.

II. TESTING KNOWLEDGE AND CONDITIONS OF ADMISSION

These are laid down by the November 1968 Loi d'Orientation, by its implementing Decree, and by Ministry of Education Orders. The ways in which these were to be applied to Economics were laid down, for the academic year 1970/1971, by the interim management council of the Faculty of Law and Economics of Nanterre.

1. During the first two cycles, there were two ways in which knowledge could be tested:

A. Discontinuous assessment in the form of a terminal examination in each subject; this was restricted, in principle, to salary earning students.

B. Continuous assessment consisting of a combination, varying according to subject, of the three following forms:

. A terminal examination at the end of the year.
. One or more partial examinations during the year.
. A report on the student's Guided Work. Guided work may, depending on the subject, be spread over the whole of the year or only part of the year; it takes the form of periodical meetings between an assistant and, on average, 20 to 30 students. Its purpose is to help the student to assimilate the instructor's course more thoroughly, by such forms of active personal expression as talks, notes, essays and exercises, building up files and, in year 4, the "dissertation".

These are systematically judged on the student's ability, perseverance, work, participation and knowledge, and these appraisals are the ingredients of an overall Guided Work report.

C. Student Appraisal. This takes place at two sessions, one in July, the other in September/October. The second consists exclusively of written and oral examinations.

D. To pass, a student must have obtained at least average marks in the composite report for the year. The composite report is made up of subject reports, each subject being given a weighting. In year 1, for example, the weightings were as follows:

	Coefficients
. Economic analysis	8
. Mathematics and statistics	6
. History of economic events	2
. Contemporary economic issues	2
. Law of private economic activities	2
Total weightings	20

Students achieving at least average marks for some subjects at the first session may carry them over to the second.

2. "Continuous assessment" which is restricted(1) to the level of the D.E.S. is expected to encourage the students' personal endeavour. In the same way the requirement for dissertation of around 60 pages is expected to show up the students' aptitude for research, individually and collectively.

A. Weightings applied to the two examination sessions (October and February) had the same ends in view:

	Coefficients
. Training seminar	
- continuous assessment	2
- written paper, 5 hours	2
. Major research seminar	
- dissertation	6
- continuous assessment	1
. Minor research seminars	
1) continuous assessment	4
2) continuous assessment	4
. Translation of an article or extract from source-book	1
Total	20

B. This means that the dissertation accounts for at least two thirds of the marks. As the student is gradually putting this together in the course of his major research seminar, he gives reports on his progress-to-date, after which his work can be

(1) In principle

discussed and criticised. From the second half-year onwards such reports form the major ingredient of the research seminars, which will earlier have been taken up largely by the supervisor in consolidating the student's existing knowledge in the research area concerned (with talks on his work and on the general theoretical background, the putting together of reading notes, files, source-summaries, etc.).

C. The training seminar involves talks by instructor or student, preparation of files, and reading notes ... etc., and the different types of work are all under review as part of the continuous assessment process at the instructor's discretion.

III. CHARACTERISTICS OF THE TEACHING AT NANTERRE - INTENTIONS AND RESULTS

In 1964 the Ministry of Education set up the Faculty of Nanterre to decentralise a concentration in the middle of Paris. But whereas the Faculty of Letters was made autonomous from the outset, giving Dean Grappin a certain measure of administrative self-sufficiency, the Nanterre Licence in Economics was not recognised by the Ministry as a Licence in its own right until 1968.

Up to that time, Economics instructors lecturing at Nanterre were members of the Paris Faculty, on secondment to Nanterre but retaining their Paris appointments and administratively dependent upon Paris.

It was certainly the case that, after 1964, when members of the "Faculté du Panthéon"(1) were offered the possibility of secondment to Nanterre, those who took it up did so voluntarily, and for the same kinds of reason as did those of their colleagues in the Faculté de Lettres (Sorbonne) who also came to Nanterre - a wish to create contact with the students and the kind of community life there which were no longer possible in the overloaded Faculties of central Paris.

But in their efforts to give concrete form to their desire for change and for a genuinely individual kind of teaching, members of the Economics and Arts departments alike came up against an obstacle in the university's relative lack of independence vis-à-vis the Ministry, while the economics staff had the further disadvantages of being unable, until 1968, to take their decisions on the spot, and of having to teach in premises which had not been designed for them.

Until 1968 decisions affecting Economics at Nanterre were being taken in Paris, and tuition was being given in the Law and Arts buildings. So it was not until 1968, when teaching posts were created at Nanterre, and the "Panthéon" Faculty's Board voted to decide which staff members should be appointed to them, that the staff concerned gained the independence to make their own decisions.

The question does, therefore, arise(2) of just how original the teaching of economics at Nanterre has been, within the framework of

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(1) The former Faculty of Law and Economics of Paris.

(2) From that date only.

the overall organisation of economics by the Ministry. But here it must also be borne in mind that the premises available at the beginning of the 1968/69 academic year had been designed not for the Economics staff but for the preparatory year of the Institut d'Etudes Politiques (I.E.P.), which was originally to have been decentralised to Nanterre but which the Prime Minister decided at the last minute should be located elsewhere.

The way in which educational premises have been laid out obviously reflects some preconceived idea of how the teaching process is going to be arranged, while imposing its own limits on the extent to which those arrangements can be changed. The building designed for the I.E.P. at Nanterre was for the formal and ex-cathedra style of teaching; it is a large hall giving access to lecture theatres of various sizes and to some floors consisting entirely of small rooms for practical classes. With these conditions in mind it is fair to ask how far the economics teaching at Nanterre can be regarded, from various points of view, as possessing a character of its own.

A. As regards work-appraisal techniques, the end-of-year examination was the usual method until the November 1968 Loi d'Orientation came into force. Pass-rates in year 1 were noticeably higher at both examinations than the Law pass-rates (72 per cent then 71 per cent, against 55 per cent and 59 per cent in 1966/67 and 1967/68).

Continuous assessment was permitted by the Loi d'Orientation at the same time as Nanterre's right to award its own Licence was recognised, and full advantage was taken of the concession: the number of practical classes was increased in some of the courses during the first cycle, and the students' overall report was made to include the report on their practical work, while the terminal examinations were split into two interim examinations each covering half the programme.

The application of continuous assessment resulted in a reduction in the student pass-rate, which fell below the Law pass-rate (53 per cent in 1968/1969 and 46 per cent in 1969/1970 compared with 63 per cent and 45 per cent, for year 1 students). But this reduction was also due to an increase in the number of first-year students, while the staff establishment did not increase in the same proportion (see table below).

Academic year	First-year enrolments
1966-1967	538
1967-1968	768
1968-1969	759
1969-1970	1,009
1970-1971	1,038

The proof is that for the later years, at distinctly higher levels, the equivalent percentages followed a similar trend (figures for year 2 were 85 per cent, 61 per cent, 67 per cent, and third-year pass-rates were 86 per cent then 72 per cent).

The persistent increase in the percentage of students failing at the two examination sessions of year 1, which rose from 12 per cent and 11 per cent of students enrolled for the first two years to 19 per cent in 1968/1969 and 30 per cent in 1969/1970 may have been due to the lower staff ratio, together with the difficulties of putting continuous assessment into practice.

B. Organisation of tuition and of instruction. Does the way tuition and instruction are organised at Nanterre show signs that original ideas or the desire to experiment have been put into effect? This, it should be recalled, was one of the topics upon which the spontaneous staff and student committees at the Law Faculty in the rue d'Assas during May 1968 produced suggestions, some of which were included in the Loi d'Orientation, and it was partly to allow for this kind of experiment that the experimental Faculties of Dauphine and Vincennes were set up.

Although there had been thinking along similar lines at Nanterre for a number of years, Nanterre was not included in this experiment - one to which substantial resources must have been committed, since costs per student are distinctly higher at Dauphine than for the average Law or Economics faculty.

If an active teaching approach is to be tried out then a tight budget will clearly prove a considerable handicap. But need it be the deciding factor? In other words, does a shortage of funds inexorably lead one to organise teaching along the traditional lines (with lectures, practical classes, examinations, etc.?) Nanterre does seem to have been relying, perhaps unconsciously, on this traditional excuse, at least until this year. Until this year the formal lecture has been the rule, even though delivering lectures is not a condition of service for the academic staff, who are free to give tuition in whatever way they choose. It must be admitted, however, that this individual freedom is somewhat theoretical, being considerably restricted in one way by a Ministry requirement that at least half the student's assessment be based on terminal or interim examinations. This has the effect of leading the students to regard the more active involvement of their practical classes, on which continuous assessment is based, as being 'unprofitable', and it also makes them feel that they have got to be 'cramming' - one of their major complaints about the teaching throughout the Licence course. In fact after 1968, when the Economics U.E.R. became independent, the number of practical classes was increased and continuous assessment introduced with the aim, in both cases, of instigating more staff-student contact and setting more value on thinking things out than on rote learning. In the event, though, these steps did no more than compensate for a rise in the number of students so that one can hardly say they did much to improve the quality of the tuition.

Another constraint upon the individual staff-member's scope for innovation is that, mathematics and statistics excepted,

there has been an almost total lack of co-ordination in the teaching of each particular subject. This stems from the principle that everyone must be entirely unfettered. But is there, perhaps, something rather too traditional about seeing any attempt at co-ordination as a threat to freedom? Could it be that by making everyone work in isolation another kind of curb is put on freedom of action? The U.E.R. Council seems to have had this latter consideration in mind when it decided that during the academic year 1971/1972 it would arrange for staff teaching the various years of the course to meet periodically to compare notes.

C. This absence of co-ordination also affects the content of the tuition. It all too easily leads to some topics being repeated unnecessarily, while others are left out altogether and, even more, to the situation where a concept with which a student needs to be familiar to deal with one course, but which happens to be taught at some other course, turns out not to have been taught in time. The students are practically the only people with an overall picture of all the different forms of instruction provided simultaneously for them, over the year, and they have the impression of a lack of coherence, of not knowing where they are going.

Another point is that an overall view of the programmes for the four years leading to the Licence shows that they tend to dwell more upon descriptions, facts and, especially, institutions, than upon the theoretical concepts and how to manipulate them. It is true that since 1968 there has been more emphasis on the most recent aspects of economic knowledge, with the introduction of courses dealing with real economic, financial and socio-economic problems. But there seems to be a tendency to confine the critical comparison of competing economic theories to the main course of the 1st cycle and then to year 4, to financial economics and to economic history. This is probably due to the absence of co-ordination, in that the theoretical learnings of the individual lecturer are regarded, officially, as merely his private affair. This tends to neutralise a wide divergence in the theoretical positions of staff members (who include neo-classicists, Keynesians and Marxists) which, if there were arrangements for systematically confronting them, could provide an important stimulus and factor of interest.

There also seems to be some degree of balance during the first cycle in the coverage of the various schools of analysis (neo-classical, Keynesian, Marxist), their basic concepts and analytical tools, which allows for intercomparison and criticism when a particular topic, such as currency or the State, is being studied, but during the second cycle this seems to give way to a predominance of mathematical economics, models and business management techniques.

The obvious answer here is that Business Economics and Econometrics are by far the most popular specialisations, because of the better employment prospects which students

believe they offer. But is it really the case that the only things worth learning for the student with a particular career in mind are the techniques most immediately relevant to it? That is one of the topics covered by the questionnaires, but the fact is that students are choosing their specialisations without being in possession of the necessary information.

Furthermore, the choice of Business Economics and Econometrics by a large majority of students for their second-cycle options does not fit in with the personal orientations of the majority of the Nanterre staff, as is shown by the fact that the D.E.S. seminars, which quite closely reflect the personal interests of the staff and the time they have available, are mainly oriented towards macroeconomics, socio-economics and the study of various aspects of the economic role of the State, and National Economics. This explains why, although more than 400 fourth-year students told a U.E.R. enquiry during the second six months of 1970 that they were expecting to take a D.E.S. at Nanterre, only 250 entered for it in October 1970 and only 160 confirmed their enrolment when they were able to choose to take their D.E.S. at other Economics U.E.R.s in the Paris region.

It is clear that for staff and students as a body, the big questions loom larger than ever - and that specific steps to deal with them can only be taken if everyone concerned co-operates in thinking them out and discussing them:

On one side are such issues as how much time should be spent on the facts, the institutions and the theories, and on which of the theories, and how these should all be made to interrelate with one another. Then one wants to know what is actually involved in the passing on of knowledge about Economics: what sort of thing is one trying to communicate, how does one go about it, and how does one therefore organise the teacher-learner situation?

These questions have a bearing on the whole of the Licence course, and are naturally at the heart of the various issues which were raised in the questionnaires dealing with prospective "improvements" to the D.E.S.

CHAPTER II

THE PARIS-X UNIVERSITY ECONOMICS U.E.R. SURVEY

Activity No.3 of the CERI Programme of Work for 1970, "Innovation in Higher Education", had two major goals:

a) to develop new methods of approaches to the teaching process at university,

b) new management and development techniques for institutions of higher education.

The subject chosen by the Paris-X University research team, with the agreement of all the interested parties, which was to see what improvements might be made to the higher degree in Economics (the "D.E.S."), is intended as a contribution to one aspect of the second of those objectives. This study sets out to achieve a fresh definition, with the involvement of all parties concerned, of the underlying purpose or purposes of the general direction, the programmes, the teaching methods and attainment-appraisal procedures appropriate to a higher degree for a student of Economics which marks the close of his period of full-time education (in the strict sense). A brief account of the main stages in the definition of the project, a short description and then a look at some of the features which seem to distinguish this particular survey from others carried out in European universities under Activity No.3 of the CERI Programme will explain exactly what the Paris-X Nanterre University survey was ultimately intended to achieve, and the general lines on which it was conducted.

I. THE MAIN STAGES IN THE DEFINITION OF THE RESEARCH PROJECT FOR THE ECONOMICS U.E.R. OF PARIS-X UNIVERSITY

This project was gradually put into its final form at meetings during June and July 1970 between CERI members (Messrs. Khan, Levasseur, Legg and Fredrikson) and members of the staff of the Economics U.E.R. Paris-X University (Messrs. Babeau, Berrebi, Deplas and Hansel)(1).

At the very outset, starting on the one side from the interests and concerns of the CERI representatives, while the university

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1) Professor G. Terny who is now project leader did not take up his duties until April 1971 and consequently was not involved at the planning stages.

"management" were faced by various acute problems, some of general application (such as the forthcoming autonomy of the Teaching and Research Units provided for by the Loi d'Orientation), others more specifically related to Paris-X University (such as the proposal for setting up a D.E.S. in Economics for the academic year starting in October 1970), three possible research subjects stood out for consideration:

A. INFORMATION SYSTEMS, for specific purposes, such as recruiting staff at Paris-X University, or making optimum use of them. This subject aroused a great deal of interest but it had to be abandoned, for reasons which will appear so obvious that they hardly need be discussed in detail (special difficulties and problems, especially political ones at Nanterre, the fact that decisions affecting the recruitment of a substantial proportion of the teaching staff were being taken centrally, considerable uncertainty about what effect the Loi d'Orientation would have on the relationship between the University and the Ministry of Education). This left a choice of two "microeconomic" research topics.

B. A STUDY OF THE REQUIREMENTS AND IMPLICATIONS OF MANAGING AN INDEPENDENT TEACHING AND RESEARCH DEPARTMENT (specifically, the Economics Teaching and Research Unit) WITHIN A LARGER DECISION-MAKING SPHERE - THE UNIVERSITY

The point here would have been to identify and endeavour to solve the problems associated with laying down the Department's short and medium-term targets, with recruiting and training its staff, with its financial arrangements, with the systems needed to ensure that relevant information would flow efficiently, both within the Department itself, and between it and the other places concerned with its proper functioning (such as the University, the Ministry of Education, various sectors of the economy), with formulating the Department's research policy, etc.

C. A STUDY NOT OF DECISIONS INVOLVING THE OVERALL FUNCTIONING OF A U.E.R. BUT OF A MAJOR DECISION-MAKING FIELD IN A UNIVERSITY ESTABLISHMENT (course content, research, knowledge-testing, innovatory teaching-methods, etc.)

Since these discussions were in progress at a time when the concept of a D.E.S. in Economics was beginning to take shape, it naturally occurred to those concerned that there might be an opportunity for completely re-thinking the issues involved - the aims, the programmes, the teaching and knowledge-testing methods, job-opportunities, student information, the costs that would be involved in a re-designed D.E.S. etc.

Both of the remaining research-projects under consideration looked attractive, but for different reasons; and the third was eventually given preference over the second for reasons of two kinds:

1) firstly, because some of the provisions of the Loi d'Orientation, the stage which had at that point been reached in implementing it, and the fact that autonomy for universities was still a very new idea in France, made it hard to see how much freedom of action the "decentralised" decision units would possess, and what real constraints would continue to affect them; it should perhaps be added that one of the most

interesting aspects of the second project under consideration was immediately ruled out by the financial limits on the autonomy of the universities, and a fortiori of the Teaching and Research Units.

2) secondly, there were practical considerations of "procedure" and of how the work would have to be organised; the third subject seemed likely to fit in with these better than the second. To summarise the most important of these considerations:

a) this subject would require a minimum of consensus and the largest possible participation on the part of all concerned with the university (students, academic and administrative staff, the Ministry of Education).

b) the necessary diagnostic phase, in which key problems and decision points would be elucidated, was relatively straightforward.

c) a need for the technical requirements of the study to be matched by the human resources available, given that active participation on the part of the Economics U.E.R. staff, backed by the CERI experts, was clearly essential to the success of the undertaking.

d) its acceptability to the Ministry of Education, whose support and even encouragement would be essential if the Paris-X University project was to be regarded as a "pilot survey" worth using by other institutions of higher education.

Once the general shape of the project had been mapped out, there were further meetings between CERI representatives and members of the teaching staff of the Economics U.E.R. (in July 1970, October 1970, March 1971, etc.) at which the project was eventually given its final form, and the manifold problems involved in implementing it were dealt with. This meant that work could start on 15 April 1971.

II. THE AIMS AND METHODOLOGICAL APPROACH OF THE PARIS-X UNIVERSITY U.E.R. SURVEY

Ever since the D.E.S. in Economics was set up (and since its revision in 1959) it has been regarded in fact, though without any justification in theory, less as a qualification terminating higher education than as an intermediate stage of university education between the Licence and the Doctorat d'Etat. It would probably be fair to add that partly because of the background required of Professors for the "Agrégation" in Economics, and partly because of that permanent feature of French education, its taste for the abstract and for "theorising", the D.E.S. used to and still does impose a very theoretical training on those who take it. Furthermore, until quite recently the D.E.S. course was mainly designed to meet the requirements of students ultimately intending to read for the economics "agrégation" in higher education. In these circumstances, which applied until fairly recently, very few students holding the Licence in Economics decided to read for a D.E.S.

Naturally enough, as the number of first degrees in Economics has, for reasons which need not be discussed here, risen steeply over the last ten years, there have been noticeably more candidates for the D.E.S. Relatively fewer of the latter have planned to work towards the further academic examinations and have been looking for further training of some kind, though without information from them it was difficult to see exactly what kind. Furthermore, although the number of D.E.S. qualifications awarded in Law and Economics(1) increased from 737 in 1957/1958 to 1,301 in 1966/1967, the number of Doctorates awarded remained almost constant. It follows that growing numbers of students equipped only with a D.E.S. in Economics were offering their services on the labour market.

This raised the question of what "image" the employers in government and industry had of D.E.S. holders. What kind of background or capabilities were expected of them? What kind of responsibilities could they be given?

A - AIMS OF THE SURVEY

The D.E.S. was obviously due for an overhaul, not confined to the qualification it ought to be but taking a fresh look at its programmes, its teaching methods, the whole layout of the courses, knowledge-testing procedures, information-flow systems, etc.; this clearly meant that it would be well worthwhile to try to find out, by means of a combined operation involving the academic staff, the students, and industrialists or businessmen in the private and semi-public sectors, what attitudes or preferences would nowadays be elicited from members of these distinct groups, who would all be affected by any alterations - in the widest sense - to the D.E.S. awarded the Nanterre University Economics U.E.R., to take account of the views of each group as to what would constitute an "ideal" D.E.S.

Within this overall objective, the survey had three specific targets:

1. To find out what reputation the D.E.S. then enjoyed, and what preferences and attitudes would be held towards an 'overhauled' D.E.S. among:

   a) Students at the Paris-X Economics U.E.R.

   b) Academic staff at the U.E.R. (professors, senior lecturers and lecturers).

   c) Present and prospective employers of those holding a D.E.S. in Economics from Paris-X University (industrialists, businessmen, bankers, etc. in the private and semi-public sectors).

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(1) OECD: Development of Higher Education statistical survey - OECD. Paris, 1970, pp.304-305. The OECD statistics do not distinguish between Law and Economics in their D.E.S. figures.

The attitudes and preferences would then be compared and contrasted so as to derive either the "profile" of a D.E.S. which would match the views of all concerned (if such views emerged), or a variety of profiles corresponding to the opinions, proposals, and suggestions put forward by each of the different groups. In other words, the end-result of this phase was to be a programme, or a number of programmes (in the strict R.B.C. sense), to achieve the objective or objectives assigned by the decision-centres concerned to one or more types of renovated D.E.S.

2. A trial estimate of the costs of every kind involved in setting up and operating the D.E.S. in Economics in accordance with the programme or programmes emerging at the end of the first phase of the survey.

   In the event that more than one solution were to appear 'technically' capable of meeting the D.E.S. objective (or objectives), it would certainly have been desirable to subject them all to cost-efficiency analysis, enabling the decision-maker to exercise his choice on a basis of technical and economic efficiency. Unfortunately, apart from the fact that this would have required the team to work out a complicated simulation model of the learning processes associated with the various ways of imparting knowledge, little or nothing is known about the comparative efficiencies of such alternative teaching techniques as 'traditional' teaching, computer or CCTV-assisted tuition, etc. so there is practically no chance of tackling that basic side of the question. The team will probably have to confine its investigations on the costs side to working them out, in terms of capital costs and operating costs, for the programme or programmes adopted.

3. Decision-making procedures in the Economics U.E.R. and in Paris-X University governing the implementation of any reform of the D.E.S.

   The point of this survey is to establish the facts and to offer recommendations; these are more likely to prove helpful if they are grounded upon a proper awareness of the mechanisms which govern (or would be liable to govern) this type of decision-making in a university whose independence is still only partial.

   To illustrate these mechanisms, we shall identify a number of key-decisions affecting the new programme or programmes and try to explore four characteristics common to them all.

   a) Who takes the decisions?
   b) How are they taken?
   c) What information are they based on?
   d) What are the criteria used?

   We shall try to show, for each type of decision, what roles would be played and how much weight would be carried by, respectively, the U.E.R. 'managers' and their opposite

numbers in the University and at the Ministry of Education, what influence would be brought to bear by members of the academic staff (whose values, research-interests and preferences as to teaching methods are by no means identical), by the students and, lastly, by representatives of the various economic and administrative sectors.

The order in which objectives 1, 2 and 3 are listed represents a logical development of the succeeding phases of the study and also a descending order of priority. At the time of drafting this report, the team has hopes of making considerable progress with all three, but if unforeseen difficulties arise, either in collecting or processing the data, then compromises will obviously have to be worked out between the CERI representatives and the research team.

B. METHODOLOGY

Since only a part of the first stage of the project (collection of data on the attitudes and preferences of the groups concerned towards prospective changes in the D.E.S.) has been completed at the time of drafting this report, this section on methodology will be confined to the techniques used for gathering and processing these data. Another reason for keeping this general account very short is that the techniques are the conventional ones for dealing with this kind of problem and in any case, methodological details specifically relating to any of the individual groups are covered at the beginning of each of the chapters concerned.

1. Data collection from students, staff and prospective employers(1) was by means of questionnaires. Four separate questionnaires - naturally sharing some of the questions, or parts of them - were compiled:

   - for Paris-X University students in the fourth year of their Licence in Economics during 1970/1971 (57 questions);

   - for students taking the D.E.S. in Economics at Nanterre during the same academic year (110 questions);

   - for members of the academic staff of Paris-X University irrespective of rank and of whether or not they were involved in any of the D.E.S. teaching (131 questions);

   - for employers in private and nationalised industries (65 questions).

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(1) The Paris area employers' survey was carried out by a private concern, "Servo" (Services et Organisation). (See paragraph 5 - Meeting between representatives of Servo and members of the staff team at the Paris-X University, Nanterre, at which the questions both for employers and for other groups were given their final form.)

The first three questionnaires were drawn up following an identical procedure:

- "brainstorming" meetings at which members of the team put together their first list of topics and worked out a series of leading questions for use during the following phase;

- undirected interviews with representatives of each of the groups concerned, based upon the above topics but arranged and conducted in such a way as to leave respondents entirely free to raise any question, suggestion or criticism they cared to;

- a first draft of the questionnaire;

- the first draft was tested on other members of each group (not including any who had taken part in the first interviews) followed by discussions and criticisms of the way the questions were phrased, the order in which they were arranged, etc., and offering suggestions, which usually led to additional questions.

- the questionnaires were drafted in final form.

Two techniques were used to collect the actual data:

- Economics students in their fourth undergraduate year were invited to complete their questionnaires during the last of the practical classes of the academic year. This made it possible to obtain the replies of more than half the fourth-year students very quickly.

- D.E.S. students and the academic staff were covered by a postal survey. As usual with postal surveys, follow-up letters had to be sent. Now that the reply periods have expired the response rate for each of the groups can be regarded as around 50 per cent.

2. Processing

At the time of drafting this report, only the replies from the fourth-year students have been systematically studied to more than a partial extent. A detailed summary of the major processing stages will be found in the first part of Chapter III. Here we shall merely comment that the substantial volume of data made it essential to use a computer. Computer processing has involved (or will ultimately involve) the following operations:

- coding the questionnaire;
- transcribing the replies;
- punching and verification of cards;
- writing programmes for single-variable and multi-variable sorts;
- writing factor analysis programmes.

III. UNIQUE FEATURES OF THE PARIS-X SURVEY

This chapter concludes with a brief account of the most important points in which the Nanterre survey can be regarded as unique. This uniqueness should be seen in relation to:

A. FIRSTLY, the kind of approach the central administration in France would normally take towards deciding upon aims, objectives and resources to arrive at the final specification for qualification in higher education.

All such qualifications have hitherto, so far as the team is aware, been specified and designed by university staff exclusively, on the basis of their preferences and attitudes alone. This is not of course to say that the views of students or prospective employers will not have implicitly or explicitly been considered when decisions were taken; but there has never, apparently, been any systematic or scientific approach to the gathering of such views. It was partly to fill this gap that the Nanterre study relating to a specific qualification, the D.E.S. in Economics, was undertaken and followed the particular methodology it did. Besides, administrative decisions to introduce new qualifications, or to modify existing ones, have generally been taken without any prior evaluation of the great variety of costs involved, and this study aims to enable the decision-maker (or decision-makers) to choose from among proposals backed up at least by cost schedules, if not by efficiency indicators. If this twin target can be achieved the Nanterre study will have been a real 'pilot project'.

B. SECONDLY, by comparison with other research projects in the CERI programme on the Management of Higher Education Establishments. Contrasting the topics covered by the other projects with the topic of the Nanterre study, there seem to be at least two respects in which this project differs:

- in the first place, most of the other projects in the programme are "macroeconomic" in that they take some specific or general problem associated with one of the aspects of the operation of a university as a whole; the Paris-X University project, on the other hand, can be described as "micro-economic", partly because it is being conducted within a Department belonging to a larger decision centre, and partly because it is only taking one activity among a number of others in that Department. This being the case, there is obviously a great difference in the analytical tools and techniques used here.

- secondly, leaders of the projects in the other countries have mainly been interested in the "management" aspect, in the strict sense of "rational allocation of scarce (human or material) resources as between alternative uses". What they are looking for, on the whole, are decision-models and information systems which might enable them to minimise the costs of training students. Naturally, this aspect has not been altogether excluded from the present survey (see paragraph II. A. 2 above), but the emphasis lies far more on another aspect of running and developing a university Department - the way to bring one type of training (the

D.E.S. in Economics) offered by the academic staff into harmony, if it does not already harmonise, with the desires and preferences of its immediate market (the students) and of its ultimate market (the employers).

CHAPTER III

VIEWS, ATTITUDES AND PREFERENCES OF STUDENTS AT PARIS-X UNIVERSITY NANTERRE TOWARDS THE HIGHER DEGREE IN ECONOMICS (THE D.E.S.)

I. THE GROUPS COVERED, COLLECTION AND PROCESSING OF DATA

A. STUDENTS

The survey was carried out among two categories of students, those who in 1970/1971 were in their fourth year of reading for the Licence in Economics, and those who during the same academic year were reading for the D.E.S. in Economics at Paris-X University.

Students in the first category were among the prospective "customers" for the D.E.S. in 1971/1972, so it was very important to find out what kind of "image" they had formed of the D.E.S. before taking their final decision to enrol for it. What were they expecting to get from this further year of higher education? What would be their objectives, and on what information would they be basing their decision? What were they expecting from the academic staff? How much work, and to what standard, were they prepared to put in of their own accord? What were their views on the most suitable teaching and knowledge-testing methods? etc.

As regards students currently reading for their D.E.S. at Paris-X University, there were two reasons why it seemed essential to ascertain their views and preferences:

- First, they must surely be in the best position to take an overall view of how efficiently the present D.E.S. had been organised and operating, since they are required to take part in four seminars and are entitled to attend some others voluntarily. Their remarks, criticisms and suggestions would therefore be a particularly valuable source of detailed and general information about the D.E.S. in its present form.

- Secondly, since D.E.S. students were, in theory, up against a system which they might not find altogether satisfactory, they were in a favourable position to suggest the improvements they would like to see in the arrangements for studying this type of advanced economics. Such suggestions would be implicit both in their criticisms of the present system and in their replies to questions designed to encourage them to state what they would have chosen if they had been offered a wider choice when they enrolled.

B. COLLECTION OF INFORMATION FROM FOURTH-YEAR AND D.E.S. STUDENTS: GENERAL PRESENTATION OF THE QUESTIONNAIRES

1. How the questionnaires were devised

There were two separate questionnaires, one for the fourth-year Licence students, the other for the D.E.S. students.

The Paris-X University team started work on 15 April last, i.e. one and a half months before the end of the fourth-year lectures and Practical Classes. In view of this time-constraint, complete priority was first given to designing the questionnaire for the fourth-year Licence students, so that they could complete it during the last of the compulsory Practical Classes.

The principal stages in devising this questionnaire were as follows:

a) members of the team held "brainstorming" sessions during which the main areas of enquiry were mapped out and some of the questions were formulated;

b) at the same time as the "brainstorming" sessions tape recordings were made of undirected interviews with some 10 of the students, in which the interviewees were entirely free to express any suggestion, criticism or remark about the Licence in Economics or the D.E.S. courses (on which their information proved to be decidedly limited).

c) the results of the team's own sessions combined with the undirected interviews yielded a first draft of the questionnaire. The first draft was tested on students other than those who had taken part in the original interviews and was subject to searching discussion, after which a second version was compiled.

The questionnaire for students reading for the D.E.S. in Economics was designed, assembled and tested in exactly the same way as the questionnaire for the fourth-year students described above.

2. General presentation of the questionnaires

The fourth-year questionnaire consisted of 57 questions; the questionnaire for the D.E.S. students consisted of 110. This difference in the number of questions arose mainly from the fact that a considerable proportion of the D.E.S. questionnaire was taken up with enquiries relating to the operation and organisation of the D.E.S. as currently given at the Economics Teaching and Research Unit of Paris-X University; this part was obviously left out of the fourth-year questionnaire.

The questionnaires are unfortunately too long to be reproduced in this report, which will now merely summarise the main

topics(1).

a) General information about the student himself (age, marital status, occupation of parents, whether or not the student was also in any kind of employment, other types of study, ultimate career envisaged.

b) What were their general impressions of the Licence in Economics, and of the training it had given them? Did they regard it as an adequate qualification for admission to the D.E.S.?

c) How much did the fourth-year students know about the D.E.S.? What kinds of information ought to be made available to them (and at what point in the year preceding their prospective enrolment for it) to enable them to come to a soundly-based decision?

d) What were the motives or reasons of students wishing to read for the D.E.S.?

e) What should be the conditions and methods of entry to the D.E.S.?

f) What should be the objective or objectives of a D.E.S. in relation to the present Licence in Economics?

g) What should be the content of D.E.S. tuition, regarding both economics subjects as such and subjects which do not strictly form part of economics? In particular, ought there to be a strict correlation between the content of the tuition and the student's ultimate career?

h) Had the students any preferences as between the various teaching methods, and did they feel that knowledge-testing methods should be closely linked to teaching methods?

i) Should D.E.S. students receive an entirely university-based training or should it include 'outside' contacts such as external training periods, tuition from individuals at work in the various sectors, private and public, of the economy, or from foreign lecturers?

j) What should be the role of the D.E.S. lecturers and what new types of student-staff relationships were required to meet the wishes and needs of the students?

k) What were the costs involved in reading for the D.E.S. and what were the possible ways of covering these?

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(1) The fourth-year questionnaire has been taken as the starting point for consolidating questions into main topics here; specific points covered by the D.E.S. questionnaire are dealt with at the end of the second paragraph.

Obviously enough, the reason for including the above topics in the fourth-year and D.E.S. questionnaires was that one of the purposes of this study is to find out whether those most affected by any improvements in the general organisation of the D.E.S. course, particularly the students, would prove to have converging attitudes and opinions towards it. But, as has already been stressed, some parts of the questionnaires were specifically designed for each of the groups in the survey. This applies mainly to the D.E.S. students, who were asked about the actual conditions in which they were reading for the D.E.S. this year, and for a critical appraisal of the way the course is at present organised at Nanterre.

3. Collection of data from the students

a) The fourth-year Licence students were asked to complete their questionnaires at the last of the Practical Classes (during the last week of May or first week of June depending upon which group). In theory these last classes are compulsory, but they are only attended by a small proportion of the students. That is why although there were 535 students in the fourth-year of the Licence during 1970/1971, only 315 questionnaires(1) were completed.

The question clearly arises as to whether the substantial sample of the students who were covered really was representative of the group as a whole. There seem to be two points to make about this:

i) For the student body as a whole this response rate was entirely satisfactory since there were replies from more than one student in two. One would only wish to add that it is the most reliable of the students and those most highly motivated to do well in their Economics Licence who are the likeliest to have persevered right to the end with the work they were supposed to be doing. This would tend to suggest that the replies obtained were from individuals with a distinctly higher "sense of responsibility" than the average fourth-year student at the Paris-X Nanterre University.

ii) From the standpoint of the individual option (Econometrics, the Economics and Management of the Firm, the National Economy and Planning, International Relations and Development Economics), the method used did introduce some bias, shown in the table below, in terms of the number of replies proportionally to the number of students taking each of the options.

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(1) In fact only 314 questionnaires were used. The 315th appeared upon examination to be unduly "way out"!

3382

Table I

Specialisation	Number of fourth-year Licence students in 1970/71	Number of questionnaires completed
- Econometrics	190	113
- Economics and management of the firm	214	127
- National economy	23	12
- International economic relations	108	51
- Students not indicating their specialisation	-	11
Total	535	314

Attempts to correct this bias had to be given up because time was short, and it was not possible to contact students to improve the by-option sampling.

b) The D.E.S. questionnaire was ready by about 15 June 1971. It was sent for completion through the post, because most if not all of the research and training seminars had stopped at the end of the first fortnight of June 1971, while the Licence examinations were in progress, and were not due to begin again until the end of September. At the time of drafting this report, 87 questionnaires have been returned. It will be remembered that 160 D.E.S. students had stated their dissertation subject and thus shown that they intended to sit the forthcoming examination.

4. Processing the information

a) By 15 September 1971 only the information from the fourth-year Licence students had been systematically processed, and that only partially. The quantity, volume and variety of the information which came in made it essential to use a computer. Computer processing will incidentally make it much easier to compare replies to different questions from members of a different group, and to reconcile replies given to questions appearing in both questionnaires.

The procedure for preparing and processing the data being entirely conventional, the major steps will merely be summarised here:

(i) Coding the questionnaires

Since the team had very little time between starting the study and making the questionnaires available to

the fourth-year students, the questions could not be coded until afterwards. By taking a sample of the questionnaires and pre-analysing the sample with respect to the replies given by the students, it was possible to "close" those questions which had been "open" in the questionnaire since respondents had not had their freedom of choice restricted to a limited number of predetermined responses. This made it possible to close 48 questions and parts of questions afterwards. It may also be interesting to note that special precautions were taken to ensure that those parts which were included in all the questionnaires (fourth-year Licence, D.E.S. in Economics, staff, employers, etc.) should be coded in absolutely the same way.

(ii) Transcription of coded information to bordereaux and punching on cards

(iii) Processing by computer

At the present stage of the survey, only the information from the fourth-year students has been subjected to its first systematic processing, and has been analysed by subjecting the replies to each of the questions to a single-variable sort. Existing sort-programmes to which the team had access proved to be unsuited to the kind of processing in which members were interested, and it has been necessary to develop new programmes. The results of this single-variable sort are analysed in the second part of this chapter. Naturally the data will eventually be put through multi-variable sorts (up to five) and subjected to factor analysis.

b) Part three of this chapter will consist of a brief and entirely qualitative analysis of a sample of 29 questionnaires completed by the students enrolled for the D.E.S. in Economics at the Paris-X University, Nanterre, drawn from the 87 questionnaires the team holds now. The comments in this part of the report are consequently based on a mere manual analysis of the replies in the random-drawn sample; they therefore give only a very imperfect preview of the conclusions which may emerge once all the information from the D.E.S. students has been processed by computer. For obvious reasons, no attempt will be made to compare or contrast the responses from the other groups in this report.

II. PREFERENCES AND VIEWS OF THE FOURTH-YEAR LICENCE STUDENTS AT PARIS-X UNIVERSITY TOWARDS THE D.E.S. IN ECONOMICS

The preferences and views expressed by the 314 fourth-year Licence students who replied to our questionnaire give one indication of the "shape" which could be taken by one or more types of D.E.S. in Economics. Full details will be included in Tables annexed either to this report

or to the final report and will be made available to those interested. These Tables were compiled by subjecting the replies to each question, and sometimes even parts of questions when they seemed interesting enough to make this desirable, to single-variable sorting.

Since the fourth-year Licence students divide up into a variety of options, their replies could be expected to vary according to the option they had chosen, which would, to some extent, reflect preferences for a particular type of training, and a more or less explicit idea, if not a definite choice, of the profession or occupation which the student ultimately hoped to take up. So in order to display all the characteristics of a renovated D.E.S. linked to the "specialisation" parameter, the full results (numbers and percentages) of the single-variable sort are set out in six columns:

(i) - "Econometrics"

(ii) - "Economics and Management of the Firm"

(iii) - "National Economy and Planning"

(iv) - "International Economic Relations and Development"

(v) - Specialisation not indicated

(vi) - Total (all students, all specialisations)

In this report, intended only to show how far the team's work has progressed, it would not be possible to comment in detail on every one of the 80 Tables. The reader wishing for full details of the preferences and attitudes of the fourth-year students will find all the information which we have at present contained in these Tables. The comments which follow are intended only to illustrate, for the benefit of the busier reader, some of the more significant findings of the survey.

A. GENERAL INFORMATION ON THE FOURTH-YEAR STUDENTS

1. Student's ages

87 per cent of the students replying to the questionnaire were between 19 and 26 years old; more than 50 per cent of them were between 19 and 23 years old. It should be noticed that there were very few aged more than 27, and none admitting to be over 41. As a group, then, the fourth-year Licence students are young.

There were no marked differences here as between the specialisations, except that students taking National Economy were distinctly younger than the others (91 per cent were between 19 and 23 years old, compared with 53.1 per cent in Econometrics, 44.1 per cent in Management, and 53 per cent in International Economics); conversely, the average age of those who had opted for the Management specialisation was higher than the average for the whole group (42.6 per cent were between 24 and 26, whereas the corresponding figure for the whole group was 36.9 per cent).

2. Social background of the students

In this questionnaire, social background was taken from the father's occupation. The socio-occupational background of Nanterre students is not noticeably different from that of French students as a whole.

57 per cent of fourth-year students[1] had fathers in middle or senior management, high grades of the Civil Service or one of the professions: sons of farmers, blue collar workers and lower-grade civil servants accounted for only 16.1 per cent of the total.

It should be noted that:

(i) not one senior manager's son was taking National Economy; students from that particular socio-occupational background seemed to have a marked taste for Econometrics, accounting for 26.5 per cent of those taking it (while 22.1 per cent were sons of middle managers);

(ii) students taking the Management specialisation were, in decreasing order, sons of middle managers (25.9 per cent), senior managers (14.9 per cent), and professional men (14.1 per cent);

(iii) sons of middle managers (23.6 per cent of all students surveyed) divided almost equally (by reference to the percentages of all taking each option) among the four specialisations.

3. Do fourth-year students take jobs?

More than 2/3 (67.6 per cent) of students replying said that they had no employment, full or part-time, while they were studying. This proportion was distinctly higher among students taking Econometrics (75.3 per cent) and National Economy (75.1 per cent) than among those taking Management (65.5 per cent).(2)

Although these figures are interesting, they are not, in our view, as important as the fact that 23 per cent of fourth-year Licence students did have some kind of employment - often only part-time - but worth emphasising to the extent that the course as at present organised is still only partially geared to this type of "customer". Students in some kind of employment were mainly taking the International Economics (31.4 per cent) and Management (26.7 per cent) specialisations.

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(1) This expression does, of course, refer only to those replying to the questionnaire.

(2) These figures are no more than a guide, if only because the percentage of "no reply" to this question was very high (19.5 per cent).

4. Were students pursuing any other studies in parallel with the fourth-year of the Licence?

12.5 per cent did not reply to that question; of those who did:

a) 48 per cent were studying the fourth-year of the Economics Licence exclusively; these probably included the 23 per cent of students with jobs. This means that about one student in four was devoting his whole time to study and research in economics. The claims so often heard in interviews to the effect that economics at University is often dull or that as arranged at present, it does not require the student's full-time attention receive some support from those figures. They are further supported by the fact that:

b) around 40 per cent of the students were taking some other kind (or kinds) of qualification. A great many of these were pursuing studies which, while not perhaps perfect substitutes for the Licence, were at least very close complements to it: 14.7 per cent were attending an Ecole de Commerce or an Institut d'Administration des Entreprises; 8 per cent were at the Institut des Sciences Politiques or at a Law U.E.R. Those attending business schools were mainly among the students taking the Management and Econometrics specialisations; those taking additional courses in Politics and Law had chosen International Economics and Management. It should be noted that:

(i) at the very time when mathematical techniques are increasingly used, 2.6 per cent of the students were taking courses of this kind outside the Economics U.E.R. (eight students, six of them taking Econometrics).

(ii) that engineering students tended to favour the Management specialisation.

(iii) that all the students who were taking literary studies (in the widest sense of the term - literature, history, geography, sociology) together accounted for only 3 per cent of those replying to the questionnaire.

5. Did fourth-year students have any idea of what occupation they wished to take up?

There was a very high "no reply" rate for this question (29 per cent); of the remainder, more than half (55.5 per cent) did have an idea of the occupation they wished to take up; the corresponding percentages for those taking the Management and International Economics specialisation were respectively 59.9 per cent and 60 per cent.

Although more than one student in two knew what type of occupation he expected to move into, it should be noted that this idea was often a very nebulous one. Besides, students supplementing the answer "yes" mentioned specific professions or activities less often than a sector of employment (private enterprise, government, banking, international organisations, etc.) or a sometimes indeterminate occupational category (manager, analyst, sales manager, etc.). Replies to this question were so broad and varied that it proved impossible to code or sort them.

B. THE ECONOMICS LICENCE AS ASSESSED BY THE FOURTH-YEAR STUDENTS

As the reader will probably be aware, the Licence ès-Sciences Economiques, which in the best of cases can only be obtained after four years of higher studies (1) is one of the main degrees in Economics awarded by a French University (increasing numbers of students equipped only with this "quality seal" in Economics are taking their place in the working population). Under present legislation (with very few exceptions), this is also the degree giving entry to the D.E.S. course. The team therefore felt it would be worth while to include a number of questions about the Licence, mainly to enable them to look at two issues (2):

- does the Licence in Economics give students who take it a specialist training in any one field of economics?

- should it be regarded as giving its holders right of entry to the D.E.S.?

1. Specialisation and the Licence

In reply to the question "do you consider that with a Licence in Economics you are sufficiently specialised in a field of Economics to exercise your chosen occupation?"

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(1) Except for holders of certain qualifications (such as the M.P.C., M.G.P., C.E.L.G., pupils and former pupils of some of the engineering schools) who can be admitted to take an "accelerated" course reducing the Licence period from four to three years.

(2) A great many students quite rightly pointed out, in their criticisms and comments on the team's questionnaire (question 57), that it was ultimately illogical to think about improving the D.E.S. without first having re-thought the aims and objectives, the teaching methods, the content of the Licence in Economics, since the quality of a degree depends partly on the quality of the preceding qualification, especially if in practice the preceding qualification is a condition of entry. The team accepts this criticism and feels that with the Licence in its present impasse it could usefully be subjected to a study of the kind now being carried out into the D.E.S.

not only did nearly every one of the students reply, but even more significantly, their replies were particularly clear-cut:

a) only 6 per cent of them felt that they had sufficient specialised knowledge to carry out the occupation of their choice (7 per cent for the Econometrics specialisation; 3.9 per cent for the Management specialisation);

b) 93 per cent, on the contrary, felt that the Licence in Economics did not make them sufficiently specialised to exercise an occupation (especially the occupation of their choice) and this, it will be remembered, is something which on the whole they have fairly vague ideas about anyway.

One may wonder whether the students' feeling that the Licence does not give an adequate level of specialisation in any particular field in Economics may, perhaps, be partly due to their having no specific idea of what their future occupations are going to be. How, in that predicament, could they manage to link up, in their own minds, the requirements of exercising an occupation on the one hand, with the qualities and kinds-of-knowledge likely to be acquired at a university on the other? The figure of 93 per cent also suggests another question: what is the point of the options? Whichever specialisation option a fourth-year student had chosen, he very rarely quoted it as a way of starting to specialise in one field of economics; yet this, one would have thought, is what optional courses are for. The reasons put forward by the students to back their contention that the Licence does not make specialists of them suggest the beginnings of a reply to those questions. The reasons are:

(i) That is not what the Licence courses are <u>intended</u> to do: 49 per cent of <u>all</u> students questioned put forward this argument. This overall figure, however, conceals some fairly marked differences among the options: only 34.6 per cent of those choosing the Management option put forward this argument, compared with around 60 per cent of those taking the three other options.

(ii) The tuition given throughout the Licence lacks <u>co-ordination and planning</u>: this argument was put forward by 28.3 per cent of students (including all options) but especially by those taking the Management option (40.1 per cent), who regard this as the main reason why the Licence course does not give them the specialisation they would like.

(iii) The knowledge imparted is "not practical", and this argument, too, was mainly advanced by the Management students (9.4 per cent of them, compared with 7 per cent overall). These comments suggest two points:

1. if the aim of the Licence, with its specialisation options, is not to confer some specialisation in a particular field of economics, then what is it? This question is a fair one, and the team's questionnaire unfortunately yields nothing to help answer it.

2. there is the beginning of a fairly clear distinction between the Management students and the others. The Management students felt that the Licence ought to aim, among other things, to introduce them to specialisation which could come about with better co-ordination and planning in the tuition on the one hand, and the teaching of less theoretical knowledge on the other hand. For those taking the other options, the Licence course appears to have less definite characteristics, though these are gradually revealed in their replies to the other questions.

In reply to the question whether other teaching and pedagogical methods for the Licence would have provided this specialised training, more than one student in two (56 per cent overall) agreed; here again, there were fairly marked differences in the replies from students taking the different options: those who were taking the Management option were the most inclined (70 per cent) to feel that alterations to the content and teaching methods of the Licence might have provided them with such specialist training; next were those taking National Economy (66.5 per cent), followed by International Economics (57.5 per cent) and lastly, Econometrics (41 per cent). The Econometricians who, it will be remembered, were the most likely to state that the purpose of a Licence was not to give a specialist training, were consistent here, since nearly 42 per cent considered that other teaching methods for the Licence could not provide a specialist training. This view may perhaps be attributable to the fact that students taking Econometrics are likely to regard it not as a "special field of economics" but as a method of approach, of analysis and of handling all kinds of economic and social problems. The table below shows, for students considering that the Licence could provide a start with specialist training, the three main changes which could be made to the present situation to bring this about.

As this Table shows, all the students who can be regarded as wishing to specialise from the beginning of the second cycle of the Economics Licence were likely to complain, first, that the present course-content is too theoretical. More specialisation and weighting of options, and the introduction of training periods were, overall, the two alternative approaches most frequently put forward by the students.

Table II

	All students	Econometrics percentage	Management percentage	National Economy percentage	International Economics percentage
1) Less theoretical teaching	16.3	7.9	25.9	16.6	13.7
2) More specialisation and weighting options	12.2	7.9	15.7	-	9.8
3) Introduce on-the-job training periods	9.2	7.9	7.8	25.0	13.7
4) Work in small groups	4.4	1.7	6.2	8.3	5.8

2. The Licence in Economics and "right of entry" to D.E.S.

Under present regulations, a Licence in Economics is, as a general rule, the only formal requirement for students wishing to take a D.E.S. in Economics. The great majority of students questioned were against any change here. 78 per cent of them felt that the Licence "entitled" its holders to take the D.E.S. because:

(i) the D.E.S. was a straightforward extension of the Licence (54 per cent);

(ii) they were against any selection in principle (14.5 per cent).

Nevertheless, more than one student in five (20.8 per cent) considered that the Licence in Economics should not, by itself, entitle those who held it to take the D.E.S., some (5.4 per cent) arguing that the Licence is not designed as a preparation for the D.E.S., but more (11.9 per cent) feeling that the Licence would not be an adequate criterion; the latter argument was especially popular with students taking the Econometrics option (16 per cent) and, to a lesser extent, among those taking Management (11 per cent).

C. HOW MUCH DID FOURTH-YEAR LICENCE STUDENTS KNOW ABOUT THE ECONOMICS D.E.S.?

This section is mainly intended:

(i) to show how little the fourth-year students, the "prospective customers" for the D.E.S., knew at all about the way it was organised or the job-opportunities it would offer;

(ii) to outline the main features of an information system which would meet the wishes of the students.

1. The figures convincingly showed that students had little or no information on teaching content, the kind of work that would be required, the teaching methods or knowledge appraisal methods. In reply to the question:"do you think you know enough about the D.E.S. already planned for next year (at Nanterre or elsewhere), and about the job opportunities?", 92 per cent of all respondents said "no", only 4 per cent replied affirmatively. These percentages remain the same, to within 1 or 2 per cent, irrespective of the specialisation option chosen. Bearing in mind that this survey was conducted among students who had already spent a minimum of four years at the University, and that it was carried out at the end of May and the beginning of June 1971, i.e. some two or three months before those concerned would have to take their decision on whether or not to enrol for the D.E.S., the students' lack of awareness about it can only be regarded as disquieting.

Economists demonstrating a theory often assume, for the sake of argument, that those doing business in a market are perfectly (and costlessly!) informed: one is tempted to suggest that they should see how closely they can approach this transparency of information for an output whose production process, the constraints upon it, and the outlets are known. This would meet the wishes of 95 per cent of the students questioned, who felt that such a system was needed - 52.5 per cent suggesting that it should be implemented at the level of the University, while 18.4 per cent advocated implementing it at national level and 16.2 per cent at the level of the Paris area.

2. What the students considered desirable: the main findings were:

   a) When to put out the information: 70 per cent said they would like to receive details between six months and a year before having to decide whether or not to enrol for the D.E.S.

   b) Scope of the information - the main points which they felt it could cover were:

      1. Course content (52.5 per cent). Students opting for Econometrics (62.8 per cent) and National Economy (58.3 per cent) appeared most interested in the question of programmes whereas those taking Management (47.2 per cent) and International Economics (41.1 per cent) were apparently less interested, perhaps because they could more easily anticipate, if not forecast, the broad character of these fields of specialisation.

      2. Teaching methods (pedagogy in its broadest sense) - information should be available six months to one year before enrolment (23.5 per cent of students favoured this).

      3. Job opportunities open to D.E.S. holders (21.4 per cent). The need to know about job opportunities was more pronounced among students opting for International Economics (27.4 per cent), and National Economy (33.3 per cent). Those taking Management (20.4 per cent) and Econometrics (18.6 per cent) seemed to have a better awareness of the career prospects. Names of instructors, research themes suggested, knowledge testing methods, what period the teaching would last (known by quite a number of students) were not matters on which those questioned expressed a wish to receive information.

   c) What form of information? 47 per cent of students said that they felt that booklets should be made available at the times indicated above, and that the

information in the booklets should be supplemented with talks by members of the academic staff. If these two were both implemented, 84 per cent of students potentially interested in reading for the D.E.S. would be in a position to make better-informed decisions.

d) Collaboration with industry and information on job-opportunities for D.E.S. holders: this question was formulated in a very restrictive way in the inquiry. Although the term "industry" designates a fairly specific sector of economic activity, what the team was hoping to find out was whether the students felt it desirable for all their prospective employers to co-operate in providing information about job-opportunities, and how the students thought this should be done. No doubt it was partly due to the phrasing of this question that a quarter of the students in the survey said they did not feel that "industry" need participate directly here. The variations in attitudes as between one option and another were considerable but hardly surprising; students opting for Management were least inclined to say that industry could be left out (18.2 per cent) while those who were taking National Economy (50 per cent) and International Economics (39.2 per cent) were likelier to take this view. As regards the students replying affirmatively (64.6 per cent of all students, 66.2 per cent of those taking Econometrics, 72.3 per cent of those taking Management, 33.3 per cent of those taking National Economy and 48.7 per cent of those taking International Economics) one is bound to say that they had no very clear idea of what kind of form could be taken by co-operation on the part of industry in providing information about job-opportunities. Seven per cent of students asked for talks, 6 per cent asked for surveys in industry, 4.7 per cent asked for booklets and only 0.3 per cent asked for information about salaries. The latter point is interesting as one of a number of signs (others will be mentioned further ahead) that financial considerations were not the determining factors for students deciding what to do!

D. WHY FOURTH-YEAR STUDENTS HAD DECIDED TO STOP OR TO CONTINUE STUDYING ECONOMICS AT UNIVERSITY

The students' replies to some of the questions shed at least some light on two important areas:

- their reasons for deciding whether or not to go on studying economics after the Licence, by enrolling for the D.E.S. at Nanterre or elsewhere;
- reasons for choosing to read for the D.E.S. at Paris-X University, Nanterre.

1. Students' attitudes towards enrolling for the D.E.S. in Economics at Paris-X or any other university

a) General numerical data

Students were asked whether, at the time the information was being collected (end May/beginning of June 1971), they were planning to take a D.E.S. course (at Nanterre or elsewhere) in 1971/1972; their replies (summarised in the Table below) suggest the following comments:

Table III

	Econometrics option	Management option	National Economy option	International Economics option	All students
Not decided	22.2%	30.1%	8.3%	11.8%	23.6%
Yes	58.6%	39.5%	91.7%	70.8%	53.3%
No	19.2%	30.4%	-	17.4%	23.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

1. First, a note on students who had "not decided": they might have been still undecided for a number of reasons and insufficient information about the D.E.S., its job-opportunities and its usefulness may well have been one of them; but reading and analysing the questionnaires suggests that in many cases their indecision was due less to anything like this than to the fact that the results of the final Licence year had not yet come out when the enquiry was taking place; so that some students, perhaps because they were doubtful about their results, or 'still keeping their fingers crossed', did not wish to pre-judge the outcome, and therefore put themselves down as undecided. This explanation is suggested by comments in the questionnaire margins, and if it is the right one it means that some of the students who were still undecided at the time of the survey would have subsequently taken their place among those who did eventually enrol for the D.E.S. in May/June.

2. This means that at the minimum, more than one fourth-year Licence student in two (54 per cent) wished to continue higher studies in Economics at the University. Here again, however, students taking the Management option must be distinguished

from the others: only 39.5 per cent of them had decided to read for the D.E.S. (and 30 per cent were undecided) whereas the figure for the other options varied from around 59 per cent (for those taking Econometrics) to nearly 92 per cent (National Economy)(1).

b) Reasons for wishing or not wishing to take a D.E.S. at Nanterre or elsewhere

1. Students who appeared to have decided to leave University with the Licence degree in Economics (23.1 per cent of all questioned, but 30 per cent in the case of those taking the Management option) mostly put forward three reasons:

- family circumstances and conscription;
- lack of appeal of the D.E.S. studies as at present designed and organised. This was the reason most often given by students taking the Management option (10.2 per cent);
- requirements connected with the respondent's occupation.

2. The reasons given by students desiring to take a D.E.S. can be divided, somewhat arbitrarily, into two categories:

2.1. "Intellectual" reasons (taking this in a very wide context): here the prospect of going on to prepare the thesis for a Doctorate in Economics is clearly the central consideration: it was the only reason given by 15 per cent of all students (16 per cent of those taking Econometrics, 12.5 per cent of those taking Management, 8.3 per cent of those taking National Economy and 21.5 per cent of those taking International Economics). But students were able to give several reasons to support their decision, and when those who did so are taken into account, the prospect of preparing a doctoral thesis in Economics proves to have been one of the factors governing the decision of nearly 26 per cent of students questioned (all options combined) and of 47 per cent of students taking the International Economics option.

The intellectual interest of the D.E.S. studies themselves was quoted, independently

(1) But 92 per cent of a group consisting of only 12 students.

of preparing a thesis and together with it, by 21 per cent of all students questioned. National Economy and International Economics were the subject areas in Economics apparently arousing the keenest intellectual interest on the part of students choosing those options (66.6 per cent and 48.9 per cent); whereas Econometrics (30.9 per cent) and Management (22.6 per cent) were considerably less stimulating to the students.

2.2. Material and financial considerations: these refer to two of the suggested reasons which might have influenced the student's decision to take a D.E.S.

2.2.1. The D.E.S. was a way of acquiring a specialist training for a business career: only three students (out of 314) considered that this applied to the D.E.S. as designed and organised at present.

2.2.2. The D.E.S. as offering a higher salary than would be earned by someone holding only a Licence in Economics: as has already been noted, future D.E.S. students did not seem to be particularly motivated by financial considerations, or those who were did not regard the D.E.S. as a sure way of increasing their earnings at the start of their careers. Both these assertions are based on the following findings:

2.2.2.1. Of the students questioned, 7.4 per cent gave a higher salary obtainable with the D.E.S. as the only reason for deciding to take it. It was quoted together with other reasons by 21.7 per cent of all students (by 25.4 per cent of those taking the International Economics option and by 32.7 per cent of those taking Econometrics).

2.2.2.2. Fifty-three per cent of the fourth-year students had decided to take the D.E.S. and 38 per cent of them were in fact prepared to put a percentage figure on the increase in starting-salary they would expect for a D.E.S. holder compared with the holder of a Licence only; but, as has already been noted, only 21.7 per cent of them gave this as one of the factors in their decision. Furthermore, more than four out of five students said that they did not know whether the D.E.S. was likely to offer them a higher salary throughout their working life than would

be earned by someone holding the Economics Licence only.

2.2.2.3. For those who did have an idea of what increase in starting salary would be available to a D.E.S. holder the increases they suggested are summarised in the Table below:

Table IV

	Econometrics option	Management option	National Economy option	International Economics option	All students
1 to 10%	10.5%	20.3%	8.3%	13.7%	25.3%
11 to 20%	22.1%	21.9%	16.6%	3.9%	18.3%
over 20%	1.7%	5.5%	-	3.9%	3.8%

It was clearly the students taking the Management option, and to a lesser extent the Econometrics option, who expected the highest marginal financial benefit from their extra year of higher education.

Students taking Management and Econometrics also proved to be the likeliest to give the expectation of a higher salary as their only reason for taking the D.E.S. (11 in each option). However, they can hardly be said to have been influenced by any very tangible "cost benefit" approach to the extra year; for one thing, their assessments of the costs included serious under-estimates, if only because they practically always forgot the "opportunity cost" (the salary they would have to forego) of this further period of full-time education. This raises an interesting aspect of the theory of educational economics which will be explored more thoroughly in the final report of this survey.

2. A specific issue: reasons given by students wishing to take their D.E.S. at Paris-X University

The foregoing analysis has been of fairly general relevance in that the Paris-X students had been asked to state whether they wished to take a D.E.S. in any university; we now turn to a matter specifically related to Nanterre: would those students who had taken their Licence here, and who wished to continue their education prefer to do so at Nanterre or, given freedom to choose, to go somewhere else? In either case their reasons would be of interest.

The Table below gives a breakdown of the fourth-year students' replies to that question:

Table V

	Econometrics option	Management option	National Economy option	International Economics option	All students
No reply	40.7%	58.2%	8.3%	27.4%	44.7%
Yes	49.5%	27.5%	41.8%	59.0%	40.9%
No	9.8%	14.3%	49.9%	13.6%	14.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Comparing these figures with Table III (students planning to take a D.E.S. at Nanterre or elsewhere, to leave university, or undecided) there is an immediate similarity: apart from a number of errors due to the fact that students did not always comply properly with the instructions at the end of some questions (like "if you replied 'no' to this question, go to No.10), the figures in the "no reply" line of Table V above are the sum of the figures in the "undecided" and "no" lines of Table III. In the same way, the figures in the "yes" and "no" lines of Table V add up to the corresponding figures in the "yes" line of Table III.

Having said that the percentages in Table V show that 14.4 per cent of fourth-year students replying to our questionnaire and stating that they intended to take a D.E.S. in Economics during the next university year did not wish to take it at Paris-X University, this potential wastage applied to the different options in varying degrees: students taking National Economy were the likeliest, relatively, to say that they would continue their studies elsewhere (50 per cent). For those taking Econometrics the figure was only 9.8 per cent; for those taking Management (14.3 per cent) and International Economics (13.6 per cent), the figures are nearly the same as for all students questioned.

The reasons most frequently put forward by those intending to leave Paris-X University Nanterre upon completing their Licence tended to be of two kinds:

- difficulties in travelling between university and home (5.6 per cent cited these);
- that the D.E.S. teaching was too theoretical (2 per cent).

On the other hand, what is sometimes called the "Nanterre style" (the campus, "contestation") was rarely cited: only three out of 314, two of these being Management students, cited this as a reason for taking the D.E.S. here.

Although a number of students did seem to wish to take advantage of the possibility of choosing some other university after the Licence, 41 per cent of all those deciding to take a D.E.S. in Economics wished to do so at Nanterre University. Once again there are fairly marked differences as between the various options (see Table V, line 2).

Looking at the replies from all students questioned, the factors apparently governing the decision of those who wished to take their D.E.S. at Nanterre were, in descending order (1):

- students know the staff - some 33 per cent gave this as one of the first three reasons for choosing Paris-X University Nanterre. In each of the option groups there were some students who ranked it first, and 45.3 per cent of those taking Econometrics included it among their first three reasons.

- confidence in the teaching of Economics at Paris-X University - more than one student in four (26.4 per cent) gave this as one of the first three reasons; however it should be noted that confidence in the teaching was particularly marked among students taking Econometrics, with 37 per cent including it among their first three reasons and 17.7 per cent ranking it first. This compares with the corresponding percentages of 18.1 per cent and 3.9 per cent in the case of students taking the Management option.

- working conditions offered by the Economics U.E.R. seemed relatively satisfactory - this was included among the first three reasons by 25.2 per cent of all those replying to the questionnaire. It was most frequently put first by students taking the National Economy option (25 per cent); however it was only put first by 5.3 per cent of those taking Econometrics, 9.5 per cent of those taking Management, and 13.7 per cent of those taking International Economics.

- the next reasons, however, quoted by a limited number of students, were first, what the questionnaire referred

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(1) The questionnaire asked students to rate 6 reasons for their choice in decreasing order of preference. To overcome certain coding and processing difficulties, only the first three reasons have been taken. The table annexed to this report shows which reason was put first, second, etc. for all students together and for the corresponding breakdown by option.

to as the Nanterre atmosphere which was considered to be "good" by 14 per cent of students ranking this among their first three reasons for deciding to stay on); next, good transport facilities between Nanterre and the student's home; hardly more than one student in ten gave this as one of the first three reasons for deciding to take the D.E.S. at Paris-X University.

Table 6 below contains figures to supplement the foregoing and clarify some of these points. It shows, as percentages, the first three reasons given by fourth-year students wishing to take their D.E.S. at Nanterre irrespective of the order in which they were ranked.

Table VI

	Econometrics option	Management option	National Economy option	International Economics option	All students
- Knowing the staff	45.3%	21.3%	41.7%	41.3%	33%
- "good" atmosphere at Nanterre	14.2%	11.6%	8.3%	21.6%	14%
- Satisfactory working conditions	27.4%	18.9%	33.3%	39.1%	25.2%
- Confidence in the teaching here	37.1%	18.1%	24.9%	27.4%	26.4%
- Transport facilities	10.5%	7.7%	16.6%	21.5%	11.4%
- Other reasons	0.8%	1.5%	-	3.8%	1.8%

The comments and figures above seem to provide some indication of what might be called the "brand image" of the Economics U.E.R. in the minds of students wishing to take their D.E.S. at Nanterre.

- students taking Econometrics, National Economy and International Economics appeared to have a "favourable" overall image.

- fourth-year students taking the Management option, however, appeared to have a distinctly less favourable image. This means that if the Economics U.E.R. "managers"

were to contemplate introducing a D.E.S. in Management to "compete" with equivalents offered by other universities in the Paris area, they might appropriately start by trying to influence the students in its favour; ways in which this might be done will be discussed later.

E. WHAT SHOULD BE THE OBJECTIVE (OR OBJECTIVES) OF THE D.E.S. IN RELATION TO THE PRESENT LICENCE IN ECONOMICS?

In trying to define the objective or objectives of the D.E.S. in Economics relative to the present Licence, from the replies of the fourth-year students to three questions in the enquiry, we are really verging on the description of the ingredients of a D.E.S. designed to meet the attitudes and preferences of students whether they had decided to terminate their studies or to continue them, at Paris-X University or elsewhere. A number of difficulties arise in reply to this question, due partly to minor discrepancies in the question headings which may have confused some respondents, and partly to the apparent inconsistency of some of the students who gave contradictory replies to what were ultimately equivalent questions. In these circumstances, the figures and comments which follow must be regarded more as a guide to the potential trends and directions, than as an unambiguous statement about what the objective (or objectives) of the D.E.S. should be.

1. Looking first at whether the students felt that there should be a close link between the contents of the D.E.S. courses and the student's ultimate career, the replies could be broken down as follows:

Table VII

	Econometrics option	Management option	National Economy option	International Economics option	All students
No reply	0.8%	3.1%	-	-	1.0%
Yes	51.3%	70.0%	33.3%	41.1%	57.1%
No	47.9%	26.9%	66.7%	58.9%	41.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

This shows that 57 per cent of all those questioned felt that there should be a close link between the content of the tuition and the ultimate career, a feeling most strongly held by students taking the Management option (70 per cent) and, to a lesser extent, by those taking the Econometrics option (51 per cent).

Students feeling that such a career/course content link was not appropriate at D.E.S. level gave as their main reasons:

(i) career training can or should only be acquired at work in the outside world (25 per cent of respondents)

(ii) such career training should be acquired through courses of studies other than those leading to the D.E.S. (7 per cent).

2. A second approach to the problem of finding out what the students considered the aims of post-graduate study ought to be is to look at their replies to the question "what should the D.E.S. in Economics be in relation to the present Licence?". Their replies (see Table VIII) give a fairly clear picture of what the students we questioned were hoping to derive from their D.E.S. year.

Table VIII

	Econo-metrics option	Manage-ment option	National Economy option	Inter-national Economics option	All students
1. No reply	0.8%	2.4%	-	3.9%	1.9%
2. Introduction to economic research (pure and applied)	48.0%	24.4%	58.4%	55.0%	39.8%
3. Occupational training (general and specialised)	24.9%	53.8%	25.0%	21.6%	36.4%
4. Teacher training	-	0.7%	16.6%	5.9%	1.9%
5. A 5th year of study for the Licence	1.7%	1.5%	-	3.9%	1.9%
6. 2 and 5	8.8%	3.1%	-	1.9%	4.7%
7. 2 and 3	14.1%	12.6%	-	7.8%	11.9%
8. Other suggestions	1.7%	1.5%	-	-	1.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

This table shows that:

a) A very great many of the students in the survey did reply to this question, but had a marked tendency only to check one, or at most two, of the suggested answers. Although these covered only some of the possible reasons for taking a D.E.S., hardly any of the students took advantage of their chance to insert other reasons of their own (see line 8 of Table VIII).

b) Figures for the preferences and attitudes of 'all students' in fact mean very little because there were marked differences as between the various options. On the basis of these figures, the fourth-year students can probably be divided into two distinct groups without much risk of over-simplifying:

1. A group consisting mainly of students taking the Management option, who felt that the D.E.S. course should be intended mainly as a preparation for their future careers, providing a broad or specialised occupational training (53.8 per cent). Allowing for the fact that some of the other students felt that occupational training should be linked with an introduction to applied economic research, a total of 67 per cent of those planning to fill management positions in private and semi-public enterprises felt that their D.E.S. course should bear the same kind of relationship to the Licence as the Ecole d'Application bears to the studies at Polytechnique: learning to recognise and solve some of the problems which may come up at the beginning of their career outside. Two other points worth noting are:

- among those students feeling that the D.E.S. should be made more "career-oriented" (and of more immediate use, some of them would have added) more than half (37 per cent) would have wanted specialised occupational training in some specific area of business management.

- among those regarding the D.E.S. as an introduction to economic research (24 per cent of those taking the option) 19 per cent would have wished this introduction to be oriented towards applied research - applied, doubtless, to the problems of the economics of the enterprise.

This group, then, has two characteristic features:

- it favours an occupational qualification, general or specialised, in management, combined with an introduction to economic research, probably applied to the problems of the economics of the enterprise.

It seems clear that they did not regard the Economics U.E.R. at Paris-X University, Nanterre, as qualified to meet these objectives: these, remember, were the students

most frequently stating that they intended to take their D.E.S. elsewhere.

2. The second group is markedly consistent in its preferences regarding the main objective of the D.E.S. relative to the Licence. These were the students taking Econometrics, National Economy and International Economics and some 50 per cent of them felt that the exclusive purpose of the D.E.S. should be to introduce them to pure or applied research. Taking account of the other students who combined the "introduction to research" purpose with other suggested purposes (such as "occupational training", "5th-year of Licence"), there were altogether 71 per cent of the Econometrics students, 65 per cent of the International Economics students and 58 per cent of those taking the National Economy option who hoped that the D.E.S. courses would give them an introduction to the techniques and practice of economic research.

Although this was the first objective assigned by the majority of the students to the D.E.S., it should nevertheless be noted that on average one person in four taking these options expected the D.E.S. to provide him with a general or specialised occupational training. To the extent that the D.E.S. courses do in fact constitute an introduction to economic research, students in this group who were anxious to obtain an "occupational training" especially in Econometrics, will to a large extent have their wishes met. Confining oneself for a moment to the definition of D.E.S. objectives, and taking account of the marked differences in the groups giving their views in this survey, it seems clear that the present D.E.S., with its still somewhat nebulous objectives, cannot possibly meet the wishes of all the students who said that they were planning to take it. Assuming that the staff would agree with this classification of the students into two groups, the undeniable heterogeneity of attitude and preference could well be catered for by offering two types of training and of diploma with different objectives:

(i) A management training and diploma, a kind of "dry run" for graduates with the main but not exclusive purpose of providing a general occupational specialisation in specific areas of management. This proposal is not as straightforward as it may appear. To work it out in full would require lengthy discussions between the parties concerned and other research beyond the scope of this project would be needed. We therefore confine ourselves here to some comments and suggestions which may be suitable guidelines for such discussions.

- The expression 'management' often leads to misunderstanding. It definitely means different things to different people and would have to be properly defined.

- Just as the American, Canadian and Swedish business schools have come to specialise in one or more of the management techniques used in the various functions of business (production, sales marketing, finance, administration, etc.) it seems scarcely probable that an "economics and management" U.E.R. in France could reasonably expect to give an equally efficient "all purpose" management training. It, too, would have to decide upon some area in which to specialise.

- There is no doubt that particularly in France the expression 'management' is almost inextricably linked with private enterprise. Yet public bodies and organisations such as communes, hospitals, social security authorities, not to mention institutions of secondary education and universities, have their management and administrative problems which call for 'managers' of high quality, who, as we are aware, have difficulty in finding institutions of higher education in France offering the kind of general and specific training geared to this type of management. Might not this be one area in which a French university could usefully fill a gap?

(ii) A higher degree and training in applied economics, with two objectives: to teach advanced economic theory, and to provide an introduction and indeed a training in the different approaches and general methodology of economic research. Here, too, problems of definition, explanation and strategy would be encountered!

Analysing some of the other replies from students has enabled the team to formulate a number of suggestions which, according to the students themselves, would improve the two types of training compared with the present situation.

F. ENTRY CRITERIA AND EDUCATIONAL ROUTES TO THE D.E.S.

1. The D.E.S. is, for the majority of students, a straightforward continuation of the Licence

As has already been mentioned (1) 78 per cent of all fourth-year students felt that the Licence in Economics constituted a necessary but sufficient entry-requirement for the D.E.S. Looked at in this light, the D.E.S. becomes a straightforward extension of Licence studies, as it does when one considers their views about the length of time which should be allowed to elapse between completing the Licence and embarking on the D.E.S.

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(1) See paragraph B 2 above.

- In reply to the question "do you think it realistic for a student on finishing his Licence to break off his studies temporarily and return to the University later to prepare a D.E.S.?" 26 per cent of the students thought not, mainly because of the break in the rhythm which would be involved.

- Seventy per cent of the students said that they would be prepared to consider such a break, but 32 per cent of those felt that it ought not to last for more than a year (the present conscription period) while 11.7 per cent thought that up to two years would be acceptable.

- Only one student in ten thought that he could safely leave university after the Licence for more than two years and then return to take a D.E.S.

These figures once again show what little prospect there would be in France of arranging matters so that periods of learning and training were alternated with periods of earning one's living - partly because attitudes have become ingrained but also, and perhaps mainly, because the structure of higher education is still so inflexible. In this particular case the majority of fourth-year Licence students had the feeling that unless they took the D.E.S. immediately after their Licence (or within the two following years) they would have entirely lost any hope or prospect of returning to university.

2. Direct entry to the D.E.S. for students not holding the Economics Licence

Part of the questionnaire was designed to find out what attitude would be taken by holders of the Economics Licence towards students with first degrees in some other subject who wanted nevertheless to take the D.E.S. in Economics. We hoped to find out whether the Economics Licence-holders thought of the D.E.S. as a type of training which ought to be reserved exclusively to them, or whether on the contrary, they would be favourable to direct entry for other graduates; and if so, for what sort of graduates, and why?

a) Table IX shows that 63 per cent of students consulted were in favour of admitting graduates not holding the Licence in Economics to the D.E.S. This readiness to "throw open the gates" was particularly marked among students taking the Econometrics and Management options.

b) Students who opposed admitting graduates of equivalent standing but with degrees in different subjects tended to give two kinds of reason when they gave any at all:

   - without the Licence in Economics a prospective D.E.S. student would have an inadequate grounding in economic theory. This argument was most often advanced by students taking National Economy (25 per cent), International Economics (21.5 per cent) and Econometrics (20.3 per cent).

Table IX

	Econo-metrics option	Manage-ment option	National Economy option	Inter-national Economics option	All students
No reply	0.8%	0.7%	-	1.9%	0.9%
Yes	65.4%	63.7%	58.3%	54.9%	62.9%
No	33.8%	35.6%	41.7%	43.2%	36.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

- Another argument, that students enrolling for the D.E.S. ought all to have had the same kind of prior training, was given by 6 per cent of all students.

c) Respondents favouring direct access to the D.E.S. for students apart from holders of the Economics Licence showed significant differences in their attitudes and preferences regarding:

- the kinds of graduate to whom access to the D.E.S. should be offered;

- the entry tests they should be required to satisfy;

- the reasons for which holders of the Licence in Economics favoured opening the D.E.S. to a broader span of 1st degrees.

1. On the first point, the students mentioned six types of qualification, which are listed here in decreasing order as they appeared in the replies from the whole group.

1.1. Those holding qualifications from the Ecoles de Commerce (H.E.C., E.S.S.E.C., etc.) and from the Instituts d'Administration des Entreprises; students taking the Management option were naturally the most favourable to admitting holders of these qualifications directly to the D.E.S. (56 per cent) but it is worthy of note that about one student in two taking the other options (except for International Economics) took the same attitude.

1.2. Engineers, whichever of the schools they had attended; 42.3 per cent of all students considered that engineers should be given direct access to the D.E.S. but here again the most "open-minded" were students taking the Management option (49 per cent) and Econometrics (44.2 per cent).

1.3. Science graduates (especially mathematics); 48.6 per cent of respondents taking Econometrics felt that science graduates should be allowed to take the D.E.S. in Economics. Noticeably lower figures for the other options were, respectively, 31.5 per cent of those taking Management, 25.5 per cent for International Economics, and 25 per cent for those taking the National Economy option.

1.4. History, geography, and especially, sociology graduates. (33 per cent of all students were in favour).

1.5. Law and Political Science graduates: 11 per cent of students felt that these should be able to take the D.E.S.

1.6. Classics and modern literature graduates were regarded by only 8 per cent of students as suitable for the D.E.S. in Economics.

2. As regards the second issue, a majority of the students (1) stating that they were in favour of admitting graduates from other disciplines to the D.E.S. felt that it should be conditional upon a preliminary appraisal of their knowledge of economics; interviews, tests or an examination of the traditional kind were the usual procedures suggested.

3. It is obviously difficult to explain precisely or in any detail why a majority of the Economics graduates should have been in favour of opening the D.E.S. to a broader range of first degrees (after some preliminary test as appropriate). But they seem to have had two considerations in mind:

3.1. Extending the pluridisciplinary approach, which was of marked concern to students taking the National Economy and International Economics options, although these were, in fact, the same students as had tended to be relatively less in favour of opening the D.E.S. to students with a different background from their own.

3.2. "Upgrading" the courses and the value of the D.E.S. in Economics. The students seem to have felt that "upgrading" should mainly be achieved by admitting individuals with a scientific background (engineers and mathematics graduates)

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(1) 41.8 per cent of all students, but 65 per cent of those who were basically in favour of admitting individuals holding the qualifications mentioned to the D.E.S.

and/or individuals from the "grandes écoles" (for engineering and business). In other words, the students who felt that the standard of (and, doubtless, the value attached to) the D.E.S. needed to go up were hoping to take advantage of the "quality seal" very often conferred by a scientific and/or a specialised training at university or at the "grandes écoles". It should be noticed that students taking the Management option were the most interested in this (26 per cent), followed to a much lesser extent by those taking Econometrics (10 per cent.

G. COURSE CONTENT OF THE D.E.S. IN ECONOMICS

Students have sometimes complained that training given at the Licence level, and still more at the D.E.S., ought to take account of the kind of career they would eventually be taking up; so questions were deliberately included to try to find out what material they felt ought to be included in D.E.S. courses and in particular to clarify what the team regards as the vital issue of whether there ought to be an implicit or explicit link between the content of the teaching (taken from a list of subject-areas) and the types of career for which this teaching was to prepare them.

The students' replies to these questions and to others with the same ends in view can be analysed in two stages:

- the content of tuition provided within the university itself;
- the part played by external on-the-job assignments in the training of a D.E.S. graduate.

1. Content of tuition provided by the university itself

It may be helpful at this point to refer again to some of the facts emerging earlier on in this report:

- more than one student in two had an idea, though sometimes a nebulous one, if not of precisely what career he wished to take up, then at least of the sector of employment or type of career, at the end of his Licence course in Economics.
- 57 per cent of all students (but 70 per cent of those taking Management) felt that there ought to be a close link between the content of the D.E.S. tuition and the career envisaged.

These two points taken together suggest that, whatever the future career of those concerned or the type of training they hoped to obtain from the D.E.S., more than half

the fourth-year students knew approximately where they were going and had made an association in their minds between teaching content - training - career in its widest sense. The question then arises of whether the students questioned were able to say what sort of link could be involved:

- did they feel that there were specific types of economic training, defined for the moment merely by listing courses, subject-areas and seminars, which seemed to them to lead to a particular occupation or type of career? In other words, did the students feel that there was a link between a particular career and the training in Economics required to pursue it?

- whether knowledge and further training on matters not strictly related to economics seemed to them to be necessary to enable the D.E.S. holder to function successfully in whatever career he might aspire to?

At the stage so far reached in processing data from the fourth-year students, it is too early to try to reply to the first of those questions (1). The best that can now be done is to describe the approach we adopted. Two questions were included in the survey in which

- we tried to get the students to name four or five subjects in any way they liked from every subject-area conceivable for an Economics D.E.S. without suggestions in the questionnaire, and to link them with a career (in the widest sense of the word).

- we showed them a list of 105 possible subjects for a six-month course, told them it was not intended to be an exhaustive list, and asked them to say, and to rank in order of preference, which eight subjects, if included in the D.E.S. syllabus, they would have elected to study.

As the reader will realise, the first question was intended to deal directly with the specific issue of the link between economics training and ultimate career. Replies to the second will enable the research team not to establish associations between D.E.S. teaching-content and career, but to identify any groupings of subject-areas which indicate correlations between subjects chosen by students planning to take up different careers. If these analyses do lead to our finding such groupings or correlations, it will probably mean that shared training "streams" can be worked out to meet what at first sight appear to be widely varying preferences and attitudes.

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(1) The forthcoming OECD conference in November, 1971 will be dealing mainly with this issue, as by that time the computer analysis of the replies will have become available.

As regards information and further training on matters not strictly related to Economics, which ought to be part of the D.E.S., the preferences expressed by students taking part in the survey who replied to this question (26.5 per cent did not) must be treated with a certain amount of caution.

- Among the most popular subjects outside Economics as such, were sociology, foreign languages, and to a lesser extent psychology. These subjects were considered worth while by 25 per cent, 22 per cent and 9 per cent of the whole sample. It is noticeable that although languages were thought useful by students in all the option groups, it was those taking Management who quoted it most frequently. Sociology, on the other hand, was quoted by only 17 per cent of those taking Econometrics, (compared with 24 per cent of those taking Management, and more than 40 per cent of those taking International Economics and National Economy who felt that they would benefit from studying this subject).

- When asked about whether foreign languages should be compulsory at D.E.S. level (as they are at present), more than 70 per cent of the students replied affirmatively and a good majority (58 per cent of all students, but 71 per cent of those taking the Management option) said that English ought to be required. Many felt that this ought to have been compulsory at the Licence level.

- Subjects such as data processing, mathematics and statistics, law, geography, history and the techniques of expression were quoted by surprisingly few students (from 0.6 per cent to 5 per cent) irrespective of option. At a time when, whether one likes it or not, Economic theory is progressing along the path of ever-increasing formalisation, and Applied Economics is coming to rely more and more upon the analytical (and processing) techniques of mathematics, statistics, models, computers, etc., the students may be far too inclined, judging by their replies, to ignore a fundamental aspect of their training. It is true that their attitudes as revealed here may have been influenced by the following factors:

- the phrasing of the question itself ("what types of courses and subjects not strictly concerned with Economics do you feel that an Economics student could usefully take at other U.E.Rs?") was in fact ambiguous. It refers to an "Economics student" without being more specific, and to subjects to be taken at "other U.E.Rs". Some respondents may therefore have thought that the question was not aimed specifically at future D.E.S. students. Furthermore, knowing that statistics, mathematics and data processing are taught in the Economics U.E.R. and cannot at present be taught in any of the other departments of Paris-X University, some students may have thought that it would be neither possible nor desirable to go elsewhere to study those subjects!

- It must also be borne in mind that statistics, mathematics and data processing form an integral part of the training received by many students in the Licence course (those taking Econometrics and, to a lesser extent, Management). So these particular students may have considered that their "scientific" training was adequate by the end of the Licence and felt no wish, in the majority, to supplement it during the D.E.S. Or, supposing that last explanation to be wrong, the students could see that mathematics, statistics, data processing, etc. were heavily represented among the 105 subjects from which they were asked to choose which ones they would like to see included in the D.E.S., and may therefore have inferred that there was no point in proposing to study them at any of the other U.E.Rs, since it was reasonable to assume that these subjects were inherent in the training an Economist would receive (or ought to receive) in an Economics Department.

Clearly enough, any interpretation of replies to the questions dealing, among other things, with the student's scientific training during the D.E.S. is bound to be tentative.

2. External assignments and their part in the D.E.S. in Economics

Staff, students and employers would on the whole agree that an Economist's training would not be complete unless he was given, during his time as a student, the opportunity to encounter "real" and "concrete" problems. Including some periods of external training is one way of countering frequent criticism of the lack-of-reality in the training given to students in a university. This was a matter on which we wished to ascertain the attitudes and preferences of the students. Their replies will be analysed from two standpoints:

- training periods regarded as an integral part of the D.E.S. course;

- the problems of organising and financing these training periods.

a) External assignments in the training of Economics D.E.S. students

Table X below summarises the students' replies to the question "should training periods be included in the D.E.S. course?"

While students taking the Management option were quite clearly the most heavily in favour of training periods as part of the D.E.S. course (77 per cent of those taking the option), it is also significant that "demand" for training periods was very considerable

Table X

	Econo-metrics option	Manage-ment option	National Economy option	Inter-national Economics option	All students
No reply	15.9%	3.1%	-	3.9%	7.9%
Yes	62.8%	77.1%	58.4%	64.7%	69.0%
No	21.3%	19.8%	41.6%	31.4%	23.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

among the other options too - in Econometrics (62.8 per cent), and International Economics (64.7 per cent) especially. We regard this as a further sign that whatever career a student may expect to take up, and whatever the general direction his Licence studies take, he tends to feel that a D.E.S. should either enable him to supplement what he has learned and apply it to the problems he will eventually be dealing with at work or, if he still has only a vague idea of his future career, or has never really had a chance to make proper contact with "the outside world", to make a preliminary reconnaissance of the working world which may one day be his. Needless to say, many of the students also see a training period during their final year of higher education as the way into an organisation (private enterprise, public enterprise, administration, etc.) which might eventually offer them a job.

On the question of whether training periods should form an integral part of obtaining the D.E.S. a majority (55 per cent of students questioned) was in favour. Once again, however, the distinction already referred to between students taking the Management option and other students makes its appearance. Whereas 66 per cent of the Management students favoured integrating the training periods, the other students, although they wanted training periods, were less emphatic (50 per cent of Econometrics and 45 per cent of International Economics students). There was general agreement, however, that if the training periods were to be integrated this should be based on a training period report.

Looking at the students' preferences with regard to the number and length of training periods, at what point of the course they should be fitted in, and the type of organisation in which they should be spent, one can show, without going into detail, that:

- 50 per cent of all respondents wished to take one training period or two;

- 61 per cent felt that these could vary in length between one and three months;

- only 8 per cent would prefer to take the training period (or periods) before the "university" phase of their D.E.S. course, whereas 48.5 per cent would prefer to interpolate them into the D.E.S. course itself - over a single period (23.6 per cent), or over a number of periods (25 per cent).

- 35 per cent of the students questioned attached no importance to the particular organisation in which the training period would be spent; of those who did show a preference, around a quarter said that they would prefer private enterprises.

b) Organising and financing training periods

1. Although a great many of the students said that they wished to be given external training assignments, one cannot help noticing that here, as elsewhere, more than 55 per cent of respondents (1) felt that finding the vacancies and making the arrangements should be left entirely to the 'university' (in this case the Economics U.E.R.) or to a "professor in charge". Only 7 per cent (2) said that it should be up to the student concerned to find the assignment (or assignments) for the external training he would like to take. No one felt that this function could be given to a group of students!

2. The remuneration of training assignments was by no means ignored in the questionnaire and the students had very definite views on the matter:

   - a very small minority (3.1 per cent) said that they would not expect any remuneration;

   - 15 per cent considered that training assignments ought to be remunerated, but could not indicate what monthly salary they would expect;

   - for the others (48.4 per cent of all students and 70 per cent of students in favour of training periods as an integral part of the D.E.S.

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(1) i.e. 80 per cent of those who felt that training periods should be included in the D.E.S. courses.

(2) i.e. 3.2 per cent of those who felt that training periods should be included in the D.E.S. courses.

courses), remuneration was suggested at rates from Frs.500 to more than Frs.2,000 per month. It should, however, be noted that the responses were usually between Frs.500 and Frs.1,300.

H. TEACHING METHODS AND KNOWLEDGE-TESTING

As the D.E.S. in Economics is at present organised, both at Nanterre and in most equivalent U.E.Rs at other universities, there is really only one teaching method, the "seminar". Whereas at the Licence level, instruction is based on "lectures" together with "practical classes", these are replaced at the D.E.S. level by seminars. But what actually is a seminar? A distinction currently made between "training seminars" and "research seminars" might suggest that this pedagogical form is clearly defined and entirely suitable for the purpose (or purposes) of the D.E.S. In fact, although there is general agreement on the basic meaning of this concept (15 to 30 students having their work organised by an instructor), the types of work, the involvement of the instructor, and the methods of testing knowledge associated with seminars are still, often, unclear to instructors and students alike. So in the questionnaire for the fourth-year students it was decided not to refer to the word as though it denoted a clearly defined teaching method, but instead, to try to get the students to reveal their attitudes and preferences as between the various conceivable or possible teaching and knowledge-testing methods. Questions covering this basic aspect of the way the D.E.S. is organised, and other associated issues, were grouped around four main topics:

- the right kind of instructor for the D.E.S.;
- appropriate teaching and knowledge-testing methods;
- group work;
- staff-student relations.

1. What kind of person should teach or take part in the teaching of the D.E.S.?

Until recently, i.e. so long as the numbers of students enrolling were low enough to be coped with exclusively by established full-time staff, D.E.S. tuition was mainly given by "agrégés". Pressure of numbers has subsequently led to an increasing involvement of "non-agrégés" belonging to the faculties of Law and Economics to help the universities train post-graduates for higher degrees in economics, but it seemed desirable to ascertain the views of students towards this diversification of the teaching staff. Their replies seemed to show that:

a) a heavy majority (88 per cent) was in favour of participation by individuals outside the university in the teaching of the D.E.S., on the grounds that such individuals would have knowledge of a more concrete kind to offer than "academics" and could facilitate university contact with industry (in the broad sense).

b) An almost identical majority (89.3 per cent) felt that part of the D.E.S. tuition could usefully be given by foreign professors visiting Paris-X University for periods of between one month and one year; nearly 50 per cent of all respondents gave as their reason that foreign professors would be able to provide them with a different kind of training (better?) than they could get from French staff.

c) The students also seemed to feel that there should be teaching assistants or supervisory staff taking small working groups within what are at present being referred to as "seminars"; 23 per cent of them mentioned this although it was in no way suggested in the corresponding part of the questionnaire. This is a very interesting finding, providing evidence of the fact that more than one student in four regarded the "guided work" part of the Licence as a valuable teaching method which might suit a considerable number of D.E.S. students.

2. Teaching and knowledge-testing methods for the D.E.S.

Given that D.E.S. tuition might suitably be given by teachers from a variety of backgrounds, the question arises of what teaching and knowledge-testing methods they would have to use to meet the preferences of these students, who represent the potential market for the D.E.S.

a) Formulation of the question: This issue was covered in the questionnaire by asking: "According to whether you think that the aim of the D.E.S. should be occupational training, research, or something else, fill in the appropriate space in the table below (see Table XI) marking with a cross the desired teaching methods and enlarging on the methods of testing knowledge you would recommend (oral examination, written examination, dissertation, etc.)". The following remarks should be made about the way this question and the accompanying table were drawn up:

1. The students' choices as to teaching methods were of course guided by a list of possible teaching methods, but they did have a chance of expressing preferences for "other forms" of tuition. Very few students took it. Those who did either suggested, under a different name, one of the teaching methods already mentioned, or used it to give free rein to their imaginations.

2. On the other hand, students were completely free to suggest any method (or methods) of testing knowledge which they would like to see put into effect in the D.E.S. and to associate these with the teaching method (or methods) they had chosen.

3. The question had been formulated in that way on the basis of two assumptions:

Table XI

Aim of D.E.S. studies	TEACHING METHODS		METHODS OF TESTING KNOWLEDGE
Occupational training	Lectures by a professor . . .	☐	. . . . .
	Lectures by students	☐	. . . . .
	Group discussions (after reading) .	☐	. . . . .
	Case studies	☐	. . . . .
	Lectures by specialists . . .	☐	. . . . .
	Work on subject files	☐	. . . . .
	Other (please specify). . . .	☐	. . . . .
	. . . . .	☐	. . . . .
	. . . . .	☐	. . . . .
Fundamental research	Lectures by professors (on their own work)	☐	. . . . .
	Lectures by students on what they have read	☐	. . . . .
	Lectures by students on their research work	☐	. . . . .
	Lectures by specialists . . .	☐	. . . . .
	Work on subject files	☐	. . . . .
	Other (please specify	☐	. . . . .
Other objectives (please specify)	. . . . .		. . . . .
	. . . . .		. . . . .
	. . . . .		. . . . .
	. . . . .		. . . . .
	. . . . .		. . . . .

3.1. In the first place, it had been assumed that the appropriate teaching methods would differ depending on whether D.E.S. studies were to aim at providing students with an occupational training or to introduce them to the techniques and methods of economic research.

3.2. In the second case, it had been assumed that the students questioned would make a close or even complete correlation between teaching methods and knowledge-testing methods. In other words, the team had been expecting to be able, by comparing the students' replies, to pick out teaching methods accompanied by knowledge-testing methods which would best satisfy their preferences. As will be seen, the second assumption proved only to have been justified to a very limited extent. The respondents do not appear to have felt that teaching methods and knowledge-testing methods should be strictly related.

b) N.B.: Since the students were asked to state their preferences as to teaching methods and knowledge-testing methods according to whether they felt that D.E.S. studies should be oriented towards occupational training, research, or any other aim, it is again possible to see how the students divided on the objective which they were assigning to the D.E.S.

Table XII

	Econo-metrics option	Manage-ment option	National Economy option	Inter-national Economics option	All students
No reply	4.4%	2.3%	8.4%	3.9%	4.1%
Occupational training	54.9%	75.7%	41.6%	43.1%	61.0%
Fundamental research	39.9%	19.7%	50.0%	43.1%	32.1%
Others	0.8%	2.3%	-	9.9%	2.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Comparing the figures of Table XII with Tables VII and VIII shows that a considerable change occurs in the breakdown between students favouring a D.E.S. aiming at

occupational training and those who would have preferred the D.E.S. to be an introduction to economic research. Whether one looks at all students, or at the individual option groups, it can be seen that the figures of Table XII show a noticeable decrease in comparison with the figures of Table VII and VIII in the number of students considering that the D.E.S. should be based on an introduction to economic research, and this is accompanied by an increase in the number feeling that the D.E.S. should aim to provide an occupational training.

For example, whereas 56.4 per cent of all students replied to the question: "What should the D.E.S. in Economics be in relation to the present Licence?" by saying that it should enable them to get their first experience of research, the corresponding figure for Table XII has gone down to 32.1 per cent (and the figure for those stating that D.E.S. studies should be aimed towards an occupational training rise from 48 per cent to 61 per cent).

The possibility of inconsistency in replies to separate questions on the same subject cannot be completely eliminated, but there are two other possible explanations:

1. The questions were not directly comparable in the way they were phrased: one of them (asking students to define the objectives of the D.E.S. in relation to the Licence) contained the expressions "pure economic research" and "applied economic research", while the other (on teaching and knowledge-testing methods) asked the students to make a choice between "occupational training" and "fundamental research"as possible aims for the D.E.S. By restricting the second alternative to fundamental research, we may have led some students either not to reply to the second question even though they had replied to the first, or else to include themselves among those favouring a D.E.S. biased towards occupational training even while themselves intending to go in for economic research.

2. Attention has already been drawn to the fact that some students did not regard the introduction to pure (or applied) economic research aim and occupational training aim as mutually exclusive. Students taking the Econometrics option, for example, were 71 per cent in favour of the D.E.S. as an introduction to pure or applied research and 51.3 per cent of them also considered that there should be a close link between the D.E.S. teaching and the student's ultimate career. So it may be that when some of these were expressing their preferences as to teaching and knowledge-testing methods for the D.E.S., the "occupational training" aim won over the "fundamental research" aim.

TEACHING AND KNOWLEDGE-TESTING METHODS FOR THE D.E.S. IN THE LIGHT OF THE REPLIES FROM THE FOURTH-YEAR PARIS-X UNIVERSITY STUDENTS

1. Association between teaching methods and knowledge-testing methods

Where students did see an association between teaching and knowledge-testing methods, it showed up in the way in which they filled in Table XI. By processing those replies the team has been able to derive tables, for the students together (all options) and for those taking each of the options, setting the teaching methods against the knowledge-testing methods preferred by the respondents and further breaking them down into two categories: those favouring the D.E.S. as an occupational training, and those favouring it as oriented towards research. Only the results of processing the data from all students, whichever of the options they were taking, are given in the present report (Table XIII). There did not seem to be any point in reproducing tables for replies broken down by option, for reasons which Table XIII should make clear:

- In the first place, although the majority of the students were prepared to decide on the teaching methods (or methods) which would, in their view, be most suitable for the D.E.S., many of them did not reply when asked to associate one or more methods of testing knowledge with the teaching techniques they had chosen. See, for example, line 4 of Table XIII where 125 students cited "case studies" but 39 of them did not link any form of progress appraisal to it. The "no reply" figures were very high - oscillating between 19 per cent and 50 per cent (column X of Table XIII). Consequently, the combined total of respondents failing to complete the whole of Table XIII with those not quoting any knowledge-testing method clearly reduces the statistical significance of the data from those satisfying the twin requirement of a full reply. This reservation applies to any exploitation or analysis of the replies as given by all students; it means that breaking them down by option renders them utterly unreliable.

- Secondly, to the preceding finding must be added a finding on the dispersal of the students' choices of knowledge-testing method (or methods) associated with each teaching method. The reader will observe by inspecting Table XIII that the students made no close link between the two. Any particular teaching method has all or most of the knowledge-testing methods associated with it. This dispersal, together with the earlier point (about the number of "no replies") removes all significance from the replies broken down by option because then the frequencies are rarely higher than 15 and very often between 5 and 10 at any point where a line intersects with a column.

Subject to the foregoing, the reader should gain some information from Table XIII merely by looking at the figures.

TABLE XIII

ALL FOURTH-YEAR STUDENTS

		Teaching methods		Students citing the following knowledge-testing methods:																	
		Students citing the corresponding teaching methods		II Written examination		III Oral examination		IV Continuous assessment		V Reports and written work		VI Dissertation		VII Talks		VIII No test		IX Others		X No reply	
		Frequencies	% (1)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)	Frequencies (2)	% (3)
Occupational Training	1. Lecture by instructor ...	76	39.5	19	33.3	14	24.6	7	12.3	1	1.7	14	24.6	0	0	2	3.5	0	0	19	25.0
	2. Lecture by students	13	6.8	0	0	2	20	3	30	0	0	3	30	1	10	1	10	0	0	3	23.0
	3. Group discussions after reading	77	40.0	7	14	9	18	6	12	5	10	16	32	4	8	2	4	1	2	27	35.0
	4. Case studies	125	65.5	11	12.6	16	19.4	13	15.2	18	20.9	21	24.4	1	1.1	3	3.2	3	3.2	39	31.2
	5. Talks by experts	132	69.1	11	12.8	17	19.8	8	9.3	13	15.1	28	32.6	3	3.5	5	5.8	1	1.1	46	35.1
	6. Work on files	121	63.3	2	2.6	5	6.5	13	16.9	15	19.5	37	48.0	1	1.3	2	2.6	2	2.6	44	36.3
	7. Other teaching methods	26	13.6	1	4.8	0	0.0	2	9.5	9	9.5	3	14.3	3	14.3	0	0	3	14.3	5	19.4
	A. Total	570	-	51	12.9	63	16.6	52	13.4	61	15.7	122	31.5	13	3.4	15	3.9	10	2.6	183	31.0
Fundamental Research	8. Talks by professors on their work	77	76.5	9	18.4	14	28.6	4	8.2	3	6.1	9	18.4	0	0	5	10.2	5	10.2	28	36.2
	9. Talks by students on their reading	42	41.6	3	10.0	7	23.2	7	23.2	2	6.6	10	10.0	0	0	0	0	1	3.3	12	28.6
	10. Talks by students on their research	76	75.2	3	6.0	5	10.0	2	4.0	4	8.0	29	58.0	2	4.0	3	6.0	2	4.0	26	34.1
	11. Talks by specialists	56	55.5	3	11.1	7	25.9	4	14.8	4	14.8	6	22.2	0	0	3	11.1	0	0	29	51.7
	12. Work on files	53	52.5	3	8.6	6	17.2	4	11.4	5	14.3	13	37.2	1	2.8	1	2.8	2	5.6	18	34.0
	13. Other teaching methods	6	5.9	0	0	0	0	0	0	1	25.0	0	0	0	0	0	0	2	75.0	3	50.0
	B. Total	310	-	21	10.8	39	20.1	21	10.8	19	9.8	67	34.5	3	1.6	12	6.2	12	6.2	116	37.4

(1) Percentages in this column represent: $\frac{\text{students choosing teaching-method "n"}}{\text{students favouring career-oriented or research-oriented D.E.S.}} \times 100$

(2) Figures (absolute values) in columns II to X correspond to the distribution of students choosing a given teaching-method according to the type of knowledge-testing method they associated with it

(3) Percentages in columns II to IX represent: $\frac{\text{frequency of associating a particular teaching method with a particular knowledge-testing method}}{\text{frequency of associating any form of knowledge-testing method with a particular teaching method (excluding "no replies")}} \times 100$

2. Students' preferences as to teaching and knowledge-testing methods for the D.E.S.

Leaving aside the question of any links between teaching methods and knowledge-testing methods, and considering the preferences expressed by students for the various methods themselves, some very interesting conclusions can be drawn.

a) As regards teaching methods, Table XIV below shows that when these are ranked according to their frequency of being explicitly mentioned by the students, some fairly marked preferences do emerge, with little difference as between one option and another.

- Students replying to this question who felt that the D.E.S. should enable them to acquire specialised knowledge directly relevant to their careers gave three teaching methods as suitable:

  - case studies;
  - talks by experts;
  - work on files.

  Few were in favour of formal university lectures except among those taking the Management option. And very few showed any enthusiasm for lectures given by the students themselves (a teaching method which has been canvassed in some quarters as a cure for hardening of the educational arteries)!

- The students who hoped that their D.E.S. studies would constitute a period of apprenticeship in economic research showed consistency and realism here by coming down mainly in favour of teaching methods using the research work of staff and students as its "raw material", calling upon experts from outside the University to tell them about the goals of their research, the methods or method they were using, and the results being obtained.

b) The students' preferences as to knowledge-testing procedures may also be easier to judge in tabular form (see Table XV).

Whether they favoured the occupational training or the research orientation for the D.E.S., the dissertation was by far the most highly preferred form of knowledge-testing (except perhaps among those taking the International Economics option). This was an interesting finding as it not only vindicates a choice made originally by some of the "faculties" and later by the Ministry of Education, but also confirms that at the D.E.S. level students were prepared for appraisal to be based on work which they had themselves thought out and put together, which some of them had already been able to try out in the second cycle of their Licence.

TABLE XIV

		Econometrics Option		International Economics Option		Management Option		All Students	
		Frequencies	Order	Frequencies	Order	Frequencies	Order	Frequencies	Order
Occupational Training	. Lecture by instructor ..	18	*	9	**	42	**	76	**
	. Lecture by students	5		2		5		13	
	. Group discussion after reading	31	**	7	*	35	**	77	**
	. Case Studies	38	***	10	**	72	***	125	***
	. Talks by experts	37	***	15	***	75	***	132	***
	. Work on files	36	***	15	***	67	***	121	***
	. Other teaching methods .	11		2		11	*	26	*
Fundamental Research	. Talks by professors on their work	30	***	17	***	15	***	77	***
	. Talks by students on their reading	20	**	12	**	4		42	*
	. Talks by students on their research	32	***	19	***	20	***	76	***
	. Talks by specialists ...	27	***	12	**	12	**	56	**
	. Work on files	22	**	14	**	12	**	53	**
	. Other teaching methods .	3		3		0		6	

TABLE XV

		Econometrics Option		International Economics Option		Management Option		All Students	
		Frequencies	Order	Frequencies	Order	Frequencies	Order	Frequencies	Order
Occupational Training	. Written exam	9	*	4	*	37	**	51	*
	. Oral exam	14	*	7	**	41	**	63	**
	. Continuous assessment ..	8	*	10	**	31	**	52	*
	. Reports, written work ..	29	**	12	***	22	*	61	**
	. Dissertation	37	***	11	***	65	***	122	***
	. Talks	0		1		11		13	
	. No tests	1		1		13		15	
	. Other types of test	5		1		4		10	
Fundamental Research	. Written exam	7	*	4	*	8	*	21	*
	. Oral exam	12	**	11	**	13	**	39	**
	. Continuous assessment ..	7	*	14	***	0		21	*
	. Reports, written work ..	10	**	4	*	3	*	19	*
	. Dissertation	34	***	12	***	18	***	67	***
	. Talks	2		1		0		3	
	. No tests	6	*	3	*	1		12	
	. Other types of test	7	*	1		3	*	12	

Other forms of knowledge-testing favoured by the students are harder to rate, since they were overshadowed by the dissertation, but it is easier to see from Table XV which types the respondents did not seem to favour (written examination, continuous assessment), and which types they actively disliked (appraisal based on talks).

Lastly, it is noteworthy that the number of students in favour of having no kind of knowledge-testing at all was very limited. This suggests that the troubles which occasionally occur at examination time arise not so much because students are altogether opposed to assessment, but because of a discrepancy between the kind of assessment that would meet with their approval and the kind actually imposed on them.

3. Group work

Questions dealing with the students' views on work in (small) groups were intended firstly to measure the extent to which they approved or disapproved of this kind of work, then to find out what reasons lay behind their attitudes and lastly, at what level the groups should be organised and what they regarded as the optimum size.

a) The first question, in which students were asked whether they felt the group study system should be compulsory, optional, or prohibited was one on which they had decided opinions - out of the 314 only one student did not reply and only 10 (3.1 per cent) were unable to choose between the three suggested replies.

The clear-cut character of the majority reply confirms that this question touched on a well-defined issue, on which almost every student held a definite view. For about three quarters of them (74.2 per cent) it was a liberal view - that group work should be optional; 18.4 per cent would have made it compulsory and only 3.8 per cent would have prohibited it.

1. Variations as between the options show that students taking National Economy were the most "liberal", to the extent that such a conclusion can be regarded as significant given the low numbers involved (12): 11 of the 12 felt that group work should be optional. Those taking Management were the least "liberal", with only 70 per cent taking that view.

   The students were, on the whole, in favour of group work, only 3.8 per cent of them suggested that it should be prohibited. This favourable attitude was found among all the options, there being apparently no significant differences at that level.

2. The reasons adduced in support of these views show what the student really thought about group work, and also appear to have yielded some distinctions.

2.1. Taking the various reasons which were suggested in the questionnaire as possible grounds for the three choices (making group work compulsory, optional or prohibited), and adding up the number of students putting them forward, the total arrived at is different in all three cases from the total of students taking the corresponding attitude.

For example, 70 students had cited one of the various reasons for making group work compulsory ('such work would be more productive', 'one is going to have to be able to work with others during one's subsequent career', 'it teaches self-control", other reasons) whereas only 58 had replied in the same way to the same question when it was asked outright.

In contrast, only 226 students gave any reason for leaving the matter of group work to the discretion of the individual whereas 233 had said that they were in favour of doing so.

Looking at the opposite view, 22 students cited a reason for prohibiting the group system although only 12 had actually said that they felt it should be prohibited.

One apparent explanation - that some students gave more than one reason to support the same attitude - can immediately be disposed of because the replies were totalled up separately to eliminate any such possibility. The discrepancy was partly due to the 10 students who,without giving any opinion in response to the outright question (together, of course, with the one who did not reply to it at all), must nevertheless have agreed with one of the reasons corresponding to one of the possible attitudes. But this explanation does not account for the whole of the shift: "should be optional" loses 7 replies in comparison with the total number of the reasons given to support it, but the two other suggested attitudes gain 10 and 12. So there is a discrepancy of 15 gains in the gains and the losses - an excess of 4 over the "no opinion" and the "no reply".

At the present stage of the survey it is not possible to tell whether the students selecting one of the first three attitudes did in fact go on to cite reasons corresponding to the attitude they selected. The four "anomalous" replies do however suggest one possible explanation: they may have been given by students who, although they had already ticked one reason, supporting one of the suggested attitudes, found that they also agreed with one of the reasons corresponding to another of the suggested attitudes.

It would therefore appear that the reasons suggested in the questionnaire to support each of the possible attitudes may have been agreed with by students who had not directly adopted the attitude to which they were supposed to refer. For example, a student may have felt that "group study is often a waste of time" or that "the credit awarded to group study is in fact accreditation of one person's work" without necessarily wishing actually to prohibit the group system. In the same way, some may have felt that "group work is more productive than individual work" or that "this is an approach one has to be able to take during one's ultimate career" without necessarily wishing to make it compulsory. These discrepancies between the replies to the direct questions about the attitudes and the replies to the questions on the reasons behind those attitudes would, therefore, appear to indicate that there was more of a continuous spectrum than had been allowed for by the three choices offered in the first question.

2.2. Breaking the reasons down by option shows how the attitudes of the students towards group study varied according to the option they were taking.

2.2.1. The reasons given to support the attitude that group study ought to be prohibited showed that students taking National Economy and International Economics were likeliest to be in favour of prohibiting it; the very low number in those options taking this view (0 in National Economy, 1 in International Economics) was exactly the number giving the corresponding reasons. In contrast, while only 6 of the students taking Econometrics stated that they felt that group study should be prohibited, 9 of them cited one of the reasons corresponding to that attitude. Among the Management students 5 favoured prohibition but 11 cited reasons supporting it - a still wider discrepancy.

2.2.2. Analysis of the reasons cited by respondents taking the view that group study should be optional shows that, unlike the comparison by option for those who favoured prohibiting it, there was no difference in 3 of the 4 options, between the total of the various reasons and the number of students claiming to hold this attitude in reply to the earlier question; among those taking International Economics, however, there were only 32 reasons given as against 39 claiming to hold this attitude.

The various reasons were, moreover, chosen in almost the same proportions by students irrespective of option. By far the most frequently quoted reason (43.9 per cent) was a temperamental dislike of group work; all the other reasons were mentioned by fewer than 10 per cent.

2.2.3. Discrepancies appear when one analyses the reasons cited for making group study compulsory, as they did with the reasons for prohibiting it. Of the students taking Econometrics, 26 cited one of the reasons suggested for making group study compulsory, whereas only 20 said that they would be in favour of doing so. Comparable figures for those taking the other options were 28 and 26 for those taking Management, 2 and 1 for those taking National Economy, 14 and 10 for those taking International Economics. The 3 students taking Econometrics and the 6 taking Management who had made no direct choice of attitude must certainly have put themselves down as agreeing with one or other of the supporting reasons. However, there must have also been students who cited reasons corresponding to two different choices of attitude.

3. Finally, differences among the various options emerge as one looks at the reasons put forward by the students to support their choice of attitude. National Economy comes out as the option whose students were most favourable to group study, since moving from the direct choice-of-attitude to the supporting reasons merely increases the number who would be in favour of making it compulsory from one to two (1).

There were also more of the students taking International Economics in favour of making group work compulsory, but fewer of them were in favour of leaving it optional.

Econometrics was the option in which reactions varied most: as many of those who felt that group work should be left to individual discretion cited supporting reasons as had directly chosen this attitude, but there was an increase in the number feeling that it should be prohibited, as there was in the number of those feeling that it should be made compulsory.

Students taking the Management option were, on the whole, in favour of group work (they were noticeably likelier than those taking other options to cite the need for this approach in their subsequent careers, although the survey among the employers was to show that they are suspicious of this form of work) the set-offs between direct choice of attitude and supporting reasons cited are distinctly unfavourable to this form of work: the number of students stating that it should be left to the discretion of the individual was perfectly matched by the number of supporting reasons cited, but the number stating that it should be made compulsory rose very little, whereas almost twice as many of those suggesting that it should be prohibited cited a supporting reason.

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(1) Again, though, it must be remembered that in view of the very small numbers in the sample, any conclusions about those taking National Economy can only be regarded as tentative.

b) The desirable size for a study group: more than three-quarters of the students felt that it should not exceed five. Only 11.8 per cent gave between 5 and 10, 4.7 per cent gave between 11 and 20 and none gave over 20.

c) A heavy majority (80.2 per cent) felt that the groups should be set up by the students themselves. This finding goes in the direction of flexibility and open-mindedness in the implementation of this type of work. There was no really significant variation as between the options. More than three-quarters of the students (78 per cent) felt that the groups should be provided with some kind of supervision (only 12 per cent took the opposite view).

In most of the replies (35.1 per cent) it was felt that the seminar research director should himself supervise the study groups; this was closely followed (23.3 per cent) by the reply that an assistant should do so. Other suggestions (specialist, expert or practitioner, other grade of staff, academic and professional expert) received little support (12 per cent for all three). Here, too, variations as between the options did not appear to be very significant.

4. Staff/student relations

Most of the students (75.3 per cent) did attach importance to relations with the academic staff, but no meaningful conclusions can be drawn from this reply, from variations in it as between the options, or from the 16 per cent of students who, for a great variety of reasons, gave a negative reply.

a) Questions relating to the amount of staff-student contact.

Over three-quarters of the students (77.4 per cent) expressed a wish to meet members of the staff outside the ordinary 'classroom' situation.

A majority of the students (58.5 per cent) expressed the wish to meet the staff between two and five times per month on average, as against 11.7 per cent in favour of such meetings once a month at most and only 7 per cent suggesting more than five times.

By far the most frequently chosen average length for such interviews (49.6 per cent of the students) was between 10 and 30 minutes; This does seem to be the most realistic reply, since less than 10 minutes discussion once a month would seem rather a short time in which to deal with a problem while more than half an hour would be somewhat over-optimistic in terms of the demands it would make on the staff-member's time.

In the last question about meetings of this kind, the students were specifically invited to draw the conclusions implied by their previous replies. On the question of how

many students should be able to contact a given member of the staff, the replies varied from less than three (4.4 per cent) to more than 100 (2.8 per cent). A relative majority of the replies (19.4 per cent) put the number at between 4 and 20 students.

The number of teaching-hours that would be needed to satisfy the requirements expressed by the majority of the students (an average of 20 minutes' discussion, three times a month, with an average of 10 students per discussion), works out at 20 teaching-hours per month assuming that there are altogether 200 students taking the D.E.S.

b) A clear majority (67 per cent) of the fourth-year students felt that their contacts with the teaching staff during the D.E.S. should be different from those experienced when they were reading for the Licence. Their suggestions about the kind of form such 'new' types of contact might take, which have been consolidated here into five categories, had not been put into the questionnaire. Far from disclosing any differences of approach they tended to depict a similar kind of relationship: closer contacts than during the Licence (11 per cent going so far as to speak of the non-existence of any contact between the teacher and individual students during the Licence) in which the teacher acts more as a counsellor (12.4 per cent) than as a disciplinary figure. The teacher is seen much less as the head at the top of a hierarchy, and much more in the role of the expert. The students took this question seriously - three-quarters of them wrote out descriptions of the kind of new relationship they would like to have with the academic staff.

They also appear to have been particularly interested in the question which raised the possibility of appraisal of the staff by the students; there were only 7.6 per cent "no replies". More than two-thirds (68 per cent) of those who did reply would have wished to be entitled to give an appraisal, which tends to confirm the theory that the students felt they should be on a more equal footing with the staff. As to the form such an appraisal might take, the white paper and the report to the U.E.R. authorities were both cited by 26 per cent of those replying.

It is noteworthy that only 5 per cent of the undergraduate students opted for direct contacts with their lecturers, while the percentage for post-graduate students taking the D.E.S. was distinctly higher. This suggests that the methods chosen by the fourth-year students reflected the difficulty and anonymity of staff/student relationships during the Licence, caused by an inadequate staff ratio, and the resulting tendency for such relations to take the form of confrontations. The students already reading for the D.E.S. had experienced a less impersonal relationship and tended to prefer direct contact with a member of the staff when difficulties came up.

This would logically imply that since students taking Econometrics gave much the highest percentage of preferences for direct contact with staff (8.8 per cent) this must have been the option during year 4 of the Licence in which staff/student relations were the most relaxed, and the least tense or impersonal.

A majority of the students do recognise the competence of the academic staff, in spite of criticism and disappointments over relations, since 71.6 per cent expressed confidence in the staff's assessment of attainment for grading.

Some of the 10 per cent who did not reply appear not to have understood what was meant by the expression "the awarding of degrees". Mention must however be made of the substantial percentage (18.3 per cent) who, for various reasons, expressed lack of confidence in the staff over this. The reason most often cited (by 8.2 per cent) was the subjective character of the marking system. This was a criticism aimed not so much at the overall performance of the staff as at the present system of marking by a single instructor; this is borne out by those students who expressed a preference either for an appraisal by more than one member of the staff, or for the members of the study group to take part in the appraisal of each of its members. In neither case were they disputing the competence of the staff or their right to award degrees, but the procedures would be different.

MISCELLANEOUS QUESTIONS RELATED TO THE ORGANISATION OF A D.E.S.

1. How long should the courses take? How much work should the student put in?

   a) Replies to the question about the effective length of the D.E.S. courses showed considerable scatter around a period of from nine to ten months, which came out with a relative majority (38.8 per cent) of the replies.

   But periods of from six to eight months were approved by 20.3 per cent, and from 11 to 12 months by 21 per cent, and this means that the period representing the three most frequent replies (80 per cent for all three) becomes significant (six to twelve months).

   This uncertainty about the right length of time to be given to effective work for the D.E.S. may be due to the complexity of the conflicting factors which have to be taken into consideration: the difficulties of financing the year of studies might, in present circumstances, call for a fairly short period; whereas the need for the D.E.S. to represent a substantial added-value to the employer could have been expected to make the students feel that it ought not to be too short.

Lastly, the question of the duration of effective work did not look the same to those feeling that it should be obligatory to take the D.E.S. all at once as it looked to those who would have preferred to divide it up into a number of stages.

b) A majority of the students (52.2 per cent) felt that the amount of work which should be required in reading for the D.E.S. should be between 13 and 32 hours every week, i.e. leaving time for some gainful employment outside, at least half-time, to cover part of the cost of taking it.

The 21.2 per cent of students feeling that the number of hours required should be in excess of 33 per week were doubtless assuming that finance would be available either from the student's family or from some automatic grant-awarding system.

2. The costs and financing of the course

a) The replies to the questions covering the total cost of the D.E.S. studies showed that the majority of the students were unable to work out the total costs. This particularly applied to the matter of how much it cost the State (81.1 per cent) but it also applied to the costs involved for the students themselves (67.1 per cent). From the positive replies to these questions it can be seen that there was a very wide spread of suggested costs in both cases, from less than Frs. 3,000 to more than Frs. 20,000 for the State, and from less than Frs 1,000 to more than Frs.15,000 for the students. The considerable extent of scatter within these spreads gives a good indication of the students' confusion - the majority of them apparently imagining that it cost the State more than it cost them. This latter finding seems to show that the students were forgetting to allow for the opportunity cost of the year at university when trying to work out the cost to themselves.

b) On the question of how the students would finance the extra period of time spent studying for the D.E.S., their selections from among the 10 or so ways suggested were, in decreasing order:

1.	Half-time work	31.5%
2.	Full-time work	22.9%
3.	Financial support from family . .	15.2%
4.	Part-time teaching	14.9%
5.	Grants	10.5%
6.	Study allowance	7.0%
7.	Finance from firm to which student is under contract	3.7%

It is noteworthy that other methods of finance were selected by very low percentages (research contracts: 3.9 per cent; bank loan: 2.2 per cent).

Students taking the Management option were the most in favour of being financed by a firm to which they would be under contract (11 per cent) but apart from this, the percentages for the other methods of financing were similar to those given by students taking the other options. It may just be significant that four Management students selected the bank loan method compared with two of those taking Econometrics and one of those taking International Economics.

c) A system whereby the D.E.S. studies would be financed automatically was felt desirable by 61.9 per cent of the students. Those taking the Management option were the least likely to be in favour of it (34.6 per cent said "no"). The "no reply" figures varied considerably by option: very low for those taking International Economics (5.8 per cent), still quite low among those taking Management (8.6 per cent) but distinctly higher for those taking Econometrics (15.9 per cent). Among those feeling that there ought to be such a system, a majority (25.4 per cent) would have preferred it to be State-run, while slightly fewer (18.7 per cent) would have preferred it to be run by the University, and fewer still (14 per cent) felt that it should be run by the U.E.R., irrespective of option (the number taking National Economy being too low to be significant).

A majority of the students (51.1 per cent) gave no view on what form automatic financing should take, especially those taking the Management option (70 per cent). But for those who did select one of the possible forms of automatic financing, the grant and study allowance were far the most popular (cited by 36.4 per cent, as against only 5.7 per cent favouring research contracts and 1.2 per cent in favour of the bank loan). This preference was most marked among students taking the International Economics, and was least marked among those taking Management.

It seems possible to make some comparison between the two series of questions on how the studies should be financed: how the students expected to finance their extra period at university reading for the D.E.S., and the questions about the automatic system. The first questions were concerned with something in the realm of the possible, in the immediate future, whereas the second questions were concerned with what might be desirable. The first questions were to do with the individual student, and the problems connected with his own situation, whereas the second set of questions called on him to look at the question from a higher level.

Thus the difference between the percentages choosing a given method of financing in each of the two questions gives an indication of the gap between the methods which the students regarded as most probable and those they regarded as desirable. In the event, a comparison of the replies shows that this difference was a substantial one:

the four methods of financing their D.E.S. year regarded by the students as most probable (see list above), which accounted for 84.5 per cent of the replies, were completely absent from the methods they regarded as desirable and would have liked to see embodied in a system. In contrast, grants and study allowances were mentioned by only 17.5 per cent of students in reply to the first question but were suggested by 26.4 per cent of them as a desirable method of automatic financing. It should also be noted that study allowances, which 7 per cent of the students stated that they expected to cover the cost of their D.E.S. in the forthcoming year are not in fact available at present: this appears to indicate the importance attached by some students to these as a method of finance for which the student movement has been campaigning for more than 10 years, although it is not, given the present circumstances of higher education in France, a likely starter in the immediate future.

3. The question on the minimum facilities which should be made available by the university to D.E.S. students received a relatively high proportion of "no replies" (28.9 per cent). The "no replies" were distinctly higher from students taking the Management option (34.6 per cent) than from those taking the other options on average.

   These students must either have felt that this question was a side issue, or that they were not in a position to reply. The heaviest replies (28.6 per cent) dealt with libraries, photocopying and data processing equipment together. Two of these (library and photocopying) were also chosen by 14.6 per cent of the students. The workrooms which were also suggested in the question were hardly selected at all, whereas some of the students taking the D.E.S. regard it as regrettable that workrooms are not available.

4. The character of the diploma itself: it should first be recalled that a great majority of the students expressed confidence in the staff for awarding the degree. Comparing the questions on teaching and knowledge-testing methods and the question on the character of the diploma, a very clear desire emerges for teaching and knowledge-testing methods to be quite separate, depending on subject area (78.4 per cent of replies) and at the same time for the terminal diploma to be a national diploma (60.9 per cent).

   Students taking Econometrics were the least likely to feel that the diploma should be a national one (50.4 per cent) and those taking National Economy were the likeliest (10 students out of 12).

   The students therefore seem to have felt that national diplomas should be awarded on the basis of a minimal subject-matter content common to them all and that this should not prevent a certain amount of flexibility and of experimentation in teaching methods.

III. THE D.E.S. IN THE LIGHT OF A QUALITATIVE ANALYSIS OF THE VIEWS OF STUDENTS AT THAT TIME READING FOR IT AT PARIS-X UNIVERSITY, NANTERRE

The comments below are based, for reasons given in the first part of this chapter, on a manual qualitative analysis of a sample of 29 questionnaires, taken at random from the 87 replies which had come in by the end of August 1971. These notes are intended only to sift out the characteristic features of the opinions and preferences about the D.E.S. held by students who were currently reading for it.

Computer processing of the replies from these students may of course lead to corrections or even to changes in some of the findings which seem to emerge from this pre-analysis.

A. General information about the D.E.S. students

1. Their age was mainly, and almost evenly, distributed over 23 to 25 years.

2. The father's occupation showed great variety, mainly with incomes in the higher third of the population, in which industry, public administration and banking figured almost equally with the professions.

3. None of the students had made a break between the fourth-year of the Licence course (which all but two had taken at Nanterre) and the D.E.S. year. The orientation of the seminars which were being taken in the D.E.S. were in very different proportions, almost the exact converse of those taken during the "second cycle": the National Economy option, by far the least frequently chosen by second-cycle students, accounted for more than 1/5th of those taking the D.E.S. (at least on the basis of the sample being considered): almost all the students taking National Economy enrolled for the D.E.S. at Nanterre. In contrast, "the Economics of the Enterprise", distinctly the most popular in the second cycle, had been the original option of no more than one student in seven taking the D.E.S.

4. Slightly less than half the students had taken other studies in addition to the last year of the Licence. These studies had been very varied, with some predominance of literature.

5. None of them had gained access to the D.E.S. by any degree other than the Licence in Economics.

6. A majority of around 60 per cent of them were also in some kind of employment during the D.E.S., mostly in teaching (one out of three) and research (one out of four), administration (one out of six), while one out of four were working in private sector businesses. Among the reasons given nearly half were financial, while almost as many of the students cited the desirability of a link between the D.E.S. and earning one's living in the outside world.

7. The great majority (3 out of 4) of the students were devoting an average of 20 to 30 hours a week to their paid employment.

8. Among those who were in any kind of employment during the D.E.S., three-quarters stated that they were unable to work for their D.E.S. while they were so employed.

9. Two-thirds of the students had never been in any form of gainful employment before their D.E.S., so that around one-third were getting their first experience of working life during the D.E.S.

10. The D.E.S. students appeared to have precise notions of what their future careers were to be. A majority of them (60 per cent) expected to be able to choose it in the light of their own interests; only one in four expected to be governed by the situation in the jobs market.

    1 out of 5 expected his career to be in public research, 1 out of 5 expected to be in teaching and 1 out of 8 expected it to be in administration, i.e. half expected to enter the public sector in the wider sense; 1 out of 8 expected his career to be with a bank and less than 1 out of 3 expected it to be in the private sector under various forms.

11. The prospect of earning a higher salary than would be available to a graduate holding only the Licence had been a consideration for around half the students, but this had usually been of secondary importance compared with the intellectual interest of the D.E.S., cited by more than half of the students in the form of the preparation for a thesis, this constitutes a noticeable advance compared with fourth-year students, and one which is confirmed, too, by the students themselves, a great majority stating that their D.E.S. dissertation gave them a desire to write a thesis.

12. A minority of around 1 out of 3 were prepared to say what increase in starting salary they would expect to earn, as against a graduate holding only the Licence; it was generally between 10 per cent and 20 per cent. This minority becomes very low in replying to the question about the average increase in salary throughout their career.

13. Among the reasons which had lead the D.E.S. students there to opt for Nanterre, the teaching staff and the kind of teaching they offered had been the main attractions, whereas "the atmosphere" and transport facilities seem to have been secondary. This majority was the reverse of the majority derived from the replies of the fourth-year students to the same question: a considerable proportion of the fourth-year students taking the "Economics of the Firm" option proposing to leave Nanterre and take the D.E.S. elsewhere.

14. A majority of the D.E.S. students was oriented towards theoretical training, and pure and applied research. Fewer than 1 out of 10 respondents felt that the D.E.S. should constitute an occupational training, general or applied; less than one-third felt that there should be a close link between the content of the D.E.S. and the student's ultimate career. For these reasons a majority opposed adding any further condition, apart from holding the Licence, to entry to the D.E.S. This was because most of them were against any selection at this level, for a variety of reasons. One may feel that they had similar reasons for disagreeing that the "Licence" graduate had received a specialist qualification towards a career.

Some two-thirds would have wished to open the D.E.S. to students holding diplomas in areas other than Economics, mainly scientific subjects (mathematics, 'grandes écoles') and pupils from the écoles de commerce. Among the third who were able to say why, the majority cited pluridisciplinarity, but felt that entry should be conditional upon a prior test of the candidate's knowledge of economics.

B. ATTITUDES TOWARDS THE PRESENT D.E.S.

1. The number and different types of seminar

a) A majority felt that these were somewhat insufficient in number, but especially in the spectrum of choice.

b) Nearly two-thirds felt that having to take four seminars at once was excessive; these seemed especially to wish to dispute the distinction between major and minor seminars.

c) The definitions which the students gave of training seminars and research seminars came close to the official definitions, in spite of the variety of ways in which they were expressed; to supplement and deepen what was learnt during the Licence (training seminar), the initiation into research on a specific subject (research seminar). Nevertheless, more than two-thirds did not feel that the seminars they were taking corresponded to these definitions.

2. On the training seminar, the main feeling was that it was not clear on what the continuous assessment was being based whereas in the case of the research seminars, complaints were mainly about the working methods. Two-thirds of the sample seemed to feel that continuous assessment was satisfactory as applied to the research seminars, and also to the major research seminar to the extent (not always very great) that it was based on the dissertation.

Attitudes towards this form of work were overwhelmingly favourable with more than one reason being given. 6 out of 7 felt that the work involved was good training, it had not led anyone to abandon the idea of writing a thesis and, on the contrary, it had encouraged the great majority to do so. A considerable number said, in various ways, that they felt that the dissertation was not being given enough weighting in the overall report.

Lastly, the dissertation seems to play some part in the fact that almost all respondents admitted that staff contacts were more satisfactory than during the Licence.

3. Overall attitude of D.E.S. students towards their year

Despite these positive points which, doubtless among others, helped to explain why more than three-quarters considered that their D.E.S. year had proved enriching rather than disappointing, when students compared the past year with what they had expected of the D.E.S. when they enrolled for it, three-quarters of their replies showed disappointment. Criticisms of the material working conditions, mainly the library's stocks and loans and difficulties in reproducing documents, must, of course, have weighed in the overall disappointment. Beyond that, however, the students appear to have inconsistently hoped that their work would have been more theoretical and at the same time more concrete, that their research, by taking a practical direction, would have given them more opportunity to start from current economic issues, while enabling them, thinking together as a team and helped by the instructor, to make the link between the case in point with which they were dealing and the general economic theory which they had learnt as undergraduates.

It was in relation to this fairly demanding standard that a majority of the students seemed to have been somewhat disappointed by the impression of confusion they received from the year they had spent reading for the D.E.S. This impression may have been inevitable; the majority of these students wished to pursue research during their D.E.S. and were trying to do so for the first time where, as most of them regretfully admitted, the Licence had not trained them for it.

C. THE "IDEAL" D.E.S.

1. One group of questions dealt with the kind of subject matter which ought to be covered, and how this should be linked with the student's ultimate career.

a) It will be convenient to note first that if the 105 seminars from which the students were asked to choose at one point in the questionnaire are consolidated under the four directions of study which constituted the second-cycle options at Nanterre (Economics and

Management of the firms, International Economics and Development, Econometrics, National Economy) the number of choices received by each (these were respectively 25, 39, 40 and 32) quite closely mirrors the second-cycle options at Nanterre taken by the 28 D.E.S. students (respectively 5, 7, 10 and 6) whose replies constitute the sample on which these comments are based.

This suggests therefore that D.E.S. seminars are chosen mainly with a view to going further into whatever option had been chosen during the second cycle and are rarely used as an opportunity to find out about some other area of economics quite unrelated to the second-cycle option.

That statement however appears to be least justified in the case of students who had taken the Econometrics option for their Licence. These accounted for more than two-thirds of the D.E.S. students, but the choice of seminars which can be classified under Econometrics was made by only 30 per cent of the sample. Some Econometrics students did therefore choose seminars in different fields - more, apparently, than in the case of students who had taken one of the other options.

If this trend is verified, it will tend to confirm that Econometrics is less a specific field of Economics than a set of instruments which can be applied to a variety of fields: equipped with these, generally speaking, at the end of their second cycle, the Econometricians are perhaps more tempted than students who had taken the other options to satisfy their curiosity about other fields.

b) The preference of D.E.S. students for theoretical training and research as against occupational training seems to be confirmed by the fact that sociology, followed by psychology were the subject-areas most frequently suggested by the students as worth taking at other U.E.R.s at D.E.S. level.

c) The fact that Econometrics does not constitute a specific specialist subject at the level of the D.E.S. is again borne out by the fact that "Econometrics" and "mathematical and statistical methods" were only quoted as specialisations in a field of knowledge by three of the ten D.E.S. students who had taken that option. In contrast, the seven students who had taken "International and Development Economics" stated that they had chosen this specialisation.

There appeared to be some students who had not taken National Economy who chose this, together with "Public Enterprise Management", as the area in which they would specialise at the end of the D.E.S. This doubtless applied to some of the seven econometricians who were

not planning to specialise in Econometrics for the D.E.S. The others are certainly accounted for partly by the four who did not propose to specialise in any way, and by the two taking "Management in Private Enterprise" in excess of the four students who had taken that option during the second cycle. The D.E.S. students as a whole, then, were not always specialising in the same area as they had specialised in during the second cycle, some options having gained and some having lost. The discrepancy was lowest for International Economics, rising through National Economy and the Economics of the firm to Econometrics where it was greatest.

d) Comparing these results with the occupations which the student associated with the choice of D.E.S. subject-area brings out the difference in approach between Economics and Management of the firm as an option already constituting an occupational specialisation rather than an area of theoretical economic knowledge, and the other options.

For although there were students taking special subjects with occupational goals directly linked to business management (investment policy, finance, marketing, sales management and planning, advertising) and were selected by seven respondents probably comprising four students who had taken this option during their second cycle, the other options could not be directly linked to any corresponding occupational specialisation (except for International Economics, which must certainly have been the second-cycle option of four of those who had selected international institutions, and perhaps of two who chose diplomacy).

The careers which students who had taken the three options other than Management hoped to follow were first, teaching (eight selections), followed by research and consultancy (eight selections), public administration (three selections), property and town planning (three selections). It should be noted that there were seven "no replies".

2. As regards <u>teaching and knowledge-testing methods</u> a cursory inspection of the sample of 29 replies suggests the following conclusions:

a) A distinct majority of the students would have liked the D.E.S. to be run on a kind of <u>joint management</u> basis by staff and students, with both sides taking part in preparatory meetings and organising seminars in such a way as to give plenty of scope for group work (for those wishing to work in this way) with attainment appraisal taking the form of genuine continuous assessment, i.e. not merely a succession of little intermediate examinations.

They were also in favour of having these seminars supervised by professors, lecturers, and teaching assistants to help the study groups and with preparation for full meetings of the seminars.

There was also a substantial majority in favour of specific teaching and knowledge-testing methods for each seminar but, at the same time, for keeping the D.E.S. a national diploma.

These two attitudes together would imply that teaching and knowledge-testing methods should be the responsibility of the individual U.E.R. and that the criterion for the national value of the diploma is inherent in the content of the subjects taught.

b) With regard to the decision and qualification-awarding process a large majority of the students expressed confidence in the staff. But an equally large majority also wished to be able to express their appraisal of the staff themselves, directly to them, during the year for most of them, and in a white paper for some. These appraisals would deal mainly with reviewing the work methods and the content of the seminars.

As to the level at which methods of testing knowledge should be decided, the most frequent of the replies was that staff and students together should decide them.

3. Training periods were being taken during the year under study by only 4 students out of 29. The 11 students who were already in some kind of gainful employment could not take them, which seems to support the theory that the present way of financing D.E.S. studies makes training assignments impossible unless they are adequately remunerated, at least for the half of the students who were not receiving financial support from their families.

This doubtless explains why 14 students said that the training period should be remunerated, against 2 taking the opposite view. There were 10 "no replies" from students disagreeing that training periods should be an integral part of obtaining the diploma, perhaps fearing that such an arrangement might put industry in a position to influence the actual content of the D.E.S. This ambiguous attitude towards training periods is confirmed by the fact that whereas a majority felt that they should be remunerated within the financing system for the D.E.S. which they regarded as desirable, the suggestion that the course might be financed by a firm to which the students were under contract was the least often selected, with full-time employment and bank loan. Preferences here were for grants, temporary teaching employment (work of a similar kind to their studies), research contracts, part-time work, and study allowances (perhaps regarded as too unrealistic in present circumstances).

This reform-minded pragmatism doubtless explains why there were as many against as in favour of an automatic system of financing studies; the majority of those who were in favour of such a system felt that it should be under the auspices of the State, and should take the form of study allowances.

4. With regard to material resources, the main criticisms were that books were not sufficiently available for loan, the library was not open at convenient times and there were no facilities for reproducing documents.

CHAPTER IV

THE SURVEY OF THE TEACHING STAFF OF THE PARIS-X UNIVERSITY ECONOMICS U.E.R.

I. HOW THE QUESTIONNAIRE WAS COMPILED

The questionnaire for the teaching staff was compiled after the questionnaires for the students, and took those questionnaires as its starting point. A provisional version was tested on some of the Economics U.E.R. staff during the month of June. It also drew upon an open discussion with the Economics U.E.R. Director of Programmes as a result of which certain specific questions were given their final form.

II. THE STAFF QUESTIONNAIRE

This questionnaire eventually contained 131 questions and was thus the fullest of the three (the questionnaire for the fourth-year students comprised 57 questions and the one for the D.E.S. students 110).

. About half of the questions were exactly the same as had been included in the D.E.S. students' questionnaire.

. Some 20 of the questions were reformulated, either to make them more specific on the basis of what the team had learned from replies to the same questions from D.E.S. students, or to rephrase them to suit the respondents they were addressed to.

. More important, however, some 40 questions were added. There were no additions to the early part dealing with attitudes towards the present D.E.S., which remained the same apart from the reformulations mentioned above.

. However the question about what link, if any, there should be between the career to which the D.E.S. might lead and the D.E.S. teaching content was expanded on the assumption that the staff could, on the whole, be expected to have more to say on this point than the students.

. The matters into which the staff questionnaire went furthest were first, teaching and knowledge-testing methods: "what role should the instructor play in relation to the students' group study work and what, in any case, does he understand by group study?". "Who should decide what form of assessment should be applied to seminars?"."Should these forms remain the same from beginning to end of the course?".

. With regard to assessment by the D.E.S. students of the staff and their teaching, the staff questionnaire was more precise and detailed, to defuse the "emotional" factory by breaking it down into parts: the questions dealt successively with the desirability of such assessments in principle, their purpose, how they should be organised, who they should be sent to, and how they should be used.

. One complete topic which appeared in the staff questionnaire alone consisted of questions relating to the staff member's working life (teaching and research). These were to show first, where the staff member fitted into the university career-structure, what he was teaching, at Paris-X University or elsewhere, and any other activities. There were several questions dealing with the place D.E.S. teaching should occupy in the staff member's working life. Lastly, there were other questions on group teaching and research.

III. PROGRESS TO DATE

The staff questionnaire was distributed during the last days of June - i.e. at a time when members of staff had just finished lecturing but were still coming to the University for end-of-year examinations. Consequently, the vast majority, if not all members of the staff, were able to take note of this questionnaire before leaving on vacation.

However, even after sending a reminder letter in July 1971, we have to report that at the time of drafting this paper only 27 replies had reached us: these were from:

	Academic staff in this category during the year 1970/1971	Number of questionnaires completed
- Professors, Assistant Professors, Senior Lecturers	40	18
- Lecturers, Part-Time Lecturers	3	1
- Junior Lecturers	64	8
- Demonstrators	15	0
Total	122	27

Apart from the problems arising out of the very unequal rate of reply for each of these staff categories, the staff questionnaires can obviously be analysed without the computer processing which had to be used for the other groups.

This qualitative analysis will be carried out during October 1971.

CHAPTER V

FIRST RESULTS FROM THE SURVEY AMONG PROSPECTIVE EMPLOYERS IN THE PARIS REGION (1)

INTRODUCTION

The aim of the survey was to ascertain what industrial and commercial enterprises in the Paris region felt that holders of a higher degree in Economics should have learned, what standard they should have reached and what their capabilities should be.

This was to be accomplished by:

- finding out how businesses felt about the D.E.S. as it then was;

- what subjects they would have preferred to be included in the D.E.S. and what teaching methods they favoured, so as to determine the ideal D.E.S. from the employers' standpoint;

- what kinds of assignment or function were (or might be) entrusted to holders of the higher degree in Economics;

- what suggestions might be forthcoming from industrial and commercial concerns on arranging for co-operation between themselves and the universities, with particular reference to personnel exchanges;

- what attitudes were held by businessmen towards Paris-X University (Nanterre).

Two 'spokesmen' per firm were questioned all the way through: one actual or potential user of D.E.S. graduates, and one executive with responsibility for management recruitment.

I. STAGES IN CONDUCTING THE SURVEY

A. THE QUALITATIVE STAGE

At the first stage of this survey the executives were interviewed and asked to comment freely on the topics put to them.

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(1) The survey, data-collection and processing, and the preparation of this chapter were carried out by "Servo" (Services et Organisation) in association with the Paris-X University (Nanterre) research team.

8697

Social psychologists interviewed ten senior managers from industrial and commercial businesses in the Paris region:

- five of the interviewees were "users"
- five were "recruiters".

The ten interviews were then analysed and used as the basis for a draft questionnaire.

B. THE QUANTITATIVE STAGE

Working meetings were held with the business firms directly involved in the survey to see how far the area covered by the preliminary questionnaire really did coincide with their interests. In particular, an attempt was made to incorporate as many questions as possible from the questionnaires for the other groups (students and academic staff) concerned with improving the D.E.S., with the idea of being able to make comparisons later on between the attitudes and opinions of students, staff and employers.

The results of the qualitative stage showed, however, that there would be limits here - imposed by the actual lack of awareness about the D.E.S. among the executives and by the constraints of a survey among business organisations; the outcome was a shorter questionnaire than was put to the students or staff.

This again was tested on a number of businessmen so that errors or ambiguities in the phrasing could be eliminated; the questionnaire was then given its final form.

II. HOW THE SURVEY WAS CONDUCTED AND HOW THE REPLIES WERE UTILISED

A. THE SAMPLE

The survey was conducted among executives in some 50 industrial and commercial firms with headquarters in the Paris region.

The firms had been selected as far as possible from branches of activity in which D.E.S. holders are most often employed, in order to comply with the primary goal of the survey which was to delineate the current standing of the D.E.S. in industry and commerce.

The executives in the survey belonged to concerns in the following INSEE sectors of activity:

- 06.07 Electricity and Gas
- 10 Oil industry, petroleum fuels
- 26 Motors and cycles
- 35.36 Chemicals
- 47 Textiles

- 55	Publishing and newspapers
- 63	Railways
- 80.81	Intermediate and auxiliary branches of trade and industry
- 83	Banking, finance
- 84	Insurance

B. IMPLEMENTATION OF THE SURVEY

Researchers were instructed to visit each company to have the questionnaires completed, by one "recruiter" and one "user" in each firm. In the event of their being unable to question two executives belonging to the same firm, the second was to be chosen from a comparable firm within the same sector of activity. The sample of executives questioned consequently consisted of 50 "users" and 50 "recruiters".

C. UTILISATION OF THE REPLIES

Standard practice was followed in utilising replies:

1. Coding of open questions: most of the questions were pre-coded. However, a number of open questions on matters which were difficult to categorise a priori had to be closed afterwards. Questionnaire data were then put on cards.

2. Computer processing: the data on the cards were subjected first to a single-variable sort applied to the replies to each question, giving percentages for the whole sample, then to a multi-variable sort to show the percentages of the various replies broken down by category of executive (i.e. by users and recruiters, by age, etc.).

III. MAJOR FINDINGS

A. CURRENT ATTITUDES TOWARDS THE D.E.S.

1. 'Image' of the D.E.S.

The executives stressed difficulties experienced by the young D.E.S. holder in adapting to life in business, especially in a company of any size; he has been given a university training - i.e. based on theory and macro-economics. The D.E.S. holder was regarded mainly as an economist, yet the 'qualitative' stage had shown how nebulous this concept was in French industry: very few firms contained an economics research department. Fewer than two executives out of ten regarded him in a managerial or selling role.

All those who had ever employed D.E.S. graduates stressed that they tended to lack knowledge about practical matters and not to understand what business was supposed to be about.

00299

2. Comparison with other degrees

The D.E.S. appeared to be the ideal training for an economist but was only slightly more highly regarded than the H.E.C. diploma. Indeed, the 'recruiters' regarded them equally highly.

As regards the "sales" and "management" functions, the D.E.S. was rarely quoted as an ideal training. Most frequently quoted degrees were:

- H.E.C.
- American diplomas
- E.S.S.E.C.
- I.N.S.E.A.D.

3. Universities and the 'Grandes Ecoles'

In the eyes of the business community, the D.E.S. suffers from the same unfavourable attitudes as anything else connected with universities. Half the executives questioned said that they would prefer to engage a candidate with a Grande Ecole qualification. Only one executive in 25 expressed a preference for a university background. However, 45 per cent of executives stated that they did not regard the type of higher education as the most important criterion when recruiting.

The preference for the Grandes Ecoles was justified by the better training they were considered to give, the better working habits they were believed to inculcate and the more rigorous selection they were reputed to exercise at the outset. Quality of training was the criterion most frequently put forward, while eight executives out of ten felt that an improvement in university programmes would be enough to dispel industry's mistrust of university graduates.

4. The D.E.S. in the employment market

A relative majority of executives felt that D.E.S. holders found it difficult to obtain employment because their training was too theoretical and not practical enough, and because the Grandes Ecoles had a better reputation.

But in any case companies did not always see any need to take on economists. And there were some executives who had never encountered an applicant with this qualification.

5. The D.E.S. and the Licence

It is better to have the D.E.S. than to have the Licence, but that does not mean that the starting salary will necessarily be any higher. When a higher salary was offered, the difference was usually of the order of 10 per cent. As regards comparative salaries over a whole career, almost all the executives questioned declined to comment.

6. Assignments entrusted to D.E.S. holders

D.E.S. holders are mainly employed in economics research departments. They are given responsibility for economic, statistical and marketing surveys and research. However they are also employed in financial and administrative, sales and even personnel departments. What this amounts to is that at present there is no clearly-defined role for the D.E.S. holder in business.

7. Status and salary of D.E.S. holders

The great majority of D.E.S. holders are taken on as executives. In some companies, however, the grade of a newcomer holding the D.E.S. is one lower than executive. The yearly starting salary for a D.E.S. holder is about 30,000 francs. It was regarded as slightly higher than for a graduate holding only the Licence, and 10 per cent lower than for an H.E.C. graduate.

B. THE IDEAL D.E.S.

1. Teaching content

A majority of executives questioned felt that the D.E.S. ought to be an introduction to applied economic research. At both qualitative and quantitative stages the executives rarely gave any indication of what they felt would be included in the programme for an ideal D.E.S. The subject-areas most often cited were, in order, economics, marketing, forecasting, law and accountancy.

Nine out of ten of the executives felt that foreign languages should be compulsory at the D.E.S. level.

2. Forms of instruction

A combination of lectures and training periods was preferred, with contributions from experienced practitioners from industry. There was also a very clear preference for individual work over the group study system.

3. Training periods

Only two out of ten executives attached no value to external training assignments. Those who were most in favour of such interludes were actual or potential users of D.E.S. holders.

It was felt that the training period should take place in a department having some relation to the training received, that the assignment should last for about three months and should occur during the university year. The training period ought to be remunerated, the businessmen felt, and an assignment of this kind should be a required condition for receiving the diploma. The salary paid to

a trainee taking his D.E.S. would be slightly over Frs. 1,000 per month.

Interviews at the qualitative stage suggested that universities were not regarded as worthwhile intermediaries for firms wishing to take on trainees. Executives questioned during the quantitative stage said that they would prefer to make arrangements with professors responsible for the candidate students.

4. The nature of the diploma

There were almost equal numbers in favour of a national diploma and a diploma specific to the individual university. However, those over 50 years old were distinctly in favour of the national diploma.

5. Information about the D.E.S.

Respondents felt that information should be disseminated at national level, preferably in the form of a booklet, in view of the pressures on time for senior management in business.

6. The ideal functions of the D.E.S.

There was a need for more economists in industry, and seven out of ten executives felt that this should be met by holders of the D.E.S.

C. RELATIONS BETWEEN UNIVERSITY AND INDUSTRY

Almost all executives felt that co-operation between universities and business was useful, if not vital, but most felt that there was still some way to go in achieving it, and that relations between the two sides had never been easy.

1. The various forms of co-operation

The forms of co-operation preferred by executives would involve the business community in intervening in the function of the University. On the one hand, a student's training periods in industry would be assessed by the firms themselves as well as by his University professors. There would also be a considerable volume of tuition from practitioners in business.

A relative majority, however, also called for involvement in the opposite direction, with university consultants playing a part in business.

2. The particular case of Paris-X University (Nanterre)

The last question put to the executives was intended to ascertain whether the fact that the survey was concerned with the D.E.S. at Nanterre had made any difference to

their replies. Only 17 per cent of the executives questioned said that they regarded the fact unfavourably. These feared that the holder of a D.E.S. in Economics from Nanterre would be more experienced in protest than in economics, and expressed doubts about the value of the qualification.

CHAPTER VI

FUTURE PROSPECTS AND LATER STAGES IN THE ANALYSIS

This report is intended only to show what stage had been reached by the end of September 1971 with the project on which the research team of Paris-X University, Nanterre started work in the preceding April.

By now the reader will certainly have formed an impression of the objectives of this project and of the ways and means that were adopted; these will become clearer if, by way of conclusion, the stages remaining to be carried out are now briefly described. The statements below must clearly be regarded as provisional, representing only the intentions of the research team and in no way committing them to any particular course of action during the last three months of the programme.

I. WORK CURRENTLY IN HAND

The following work is currently in hand, but results have not yet become available at the time of drafting this report:

A. Computer sorting of the questions relating to subject-areas preferred by students at present in their fourth undergraduate year, and to the careers they associated with the combinations of subject-areas they had chosen.

B. Comparable sorting of replies from students currently taking the D.E.S.

C. Sorting of all questions appearing both in the fourth-year questionnaire and the questionnaire for students taking the D.E.S. (a start has been made on these single-variable sorts).

D. Computer sorting of questions put specifically to the D.E.S. students, particularly with reference to their assessment of the D.E.S. they had taken.

E. A set of multi-variable sorts affecting all students contacted: the first of these will make it possible to eliminate some questions and some subject-areas - which has to be done so that the factor analysis referred to below can be successfully performed). These first sorts will yield a rough profile of the type of D.E.S. which the students would probably favour.

F. A qualitative analysis of the staff questionnaire: since so few replies have come in, the computer will not be needed here.

This analysis should make it possible to outline some "specialised" types of D.E.S., reflecting the preferences of the staff-members. These types of D.E.S. should subsequently be contrasted with the ideal profiles yielded by thorough analysis of the replies from the students and of the survey among the prospective employers.

G. The employers' survey will be concluded and the ultimate findings reported by "Servo", the firm responsible for this part of the project.

Note

The sorting operations referred to in paragraphs A and B above will be carried out in a slightly unusual way, to allow for comparison between the various groups of subject-area. It cannot be ruled out that some combinations of subject-area may throw up similarities in the choices made by students contemplating quite different careers. It would be interesting, for example, to find that students contemplating a career as international administrators were preferring (apart from specific subject-areas chosen by them which might also be chosen by future managers) combinations of subjects which the future managers themselves also regarded as important: thus, related intentions and wishes may be found to exist among what one would at first sight have regarded as very dissimilar types of individual.

II. SUBSEQUENT OPERATIONS

A. FACTOR ANALYSIS

The sorting operations mentioned above should make it possible to eliminate some of the data currently in hand, which is too copious for factor analysis to yield any results. Factor analysis (the technique is described in an annex to this report (1)) can be expected to yield some components common to the wishes of all students contacted (unless preferences prove to be too uniformly distributed). The various items in the questionnaire will be analysed so as to delineate an "ideal profile" of the D.E.S., whose features will be broken down into types of training, content of programmes associated with these types of training, teaching methods, knowledge-testing methods, opening towards the outside, information required, estimates of the costs, etc.

B. From these 'ideal' types of D.E.S. a model will be constructed for use as a filter for the various types of D.E.S. available in the universities in the Paris region.

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(1) See Annex to Chapter VI: "A brief guide to factor analysis".

The model will be designed to embody a combination of the preferences shown by the students (II.A), the staff (I.F) and the employers (G). This comparison, together with an analysis of any features which the filter has 'held up', should make it possible to draw up one or more ideal patterns for the D.E.S. in closer detail. To implement D.E.S. courses in accordance with the pattern or patterns thus constructed (assuming that the outcome would not be self-evidently absurd) will require a practicability analysis of two kinds, discussed in paragraphs C and D below.

C. ANALYSING THE COSTS OF A D.E.S. ON THE NEW PATTERN OR PATTERNS

These costs will have to take account of the estimates provided by students in their replies, and of those suggested by the appropriate administrative departments.

D. DECISION-MAKING PROCEDURES

Analysis of the present structure of the universities, in particular of Paris-X University (Nanterre), which is more concerned than any of the others in a project investigating "the establishment of an ideal D.E.S. at Paris-X", should identify any administrative obstacles which would have to be overcome before such alterations in the programmes could be implemented at the level of the D.E.S.

An attempt will in fact be made to identify the hurdles on the path towards implementing a D.E.S. of this kind: an approach to the Government or the Ministry of Education (to obtain the financial resources needed to utilise new teaching methods, should these prove to be in question, to obtain more staff, etc.); an approach to the bodies which the Loi d'Orientation has invested with authority to make decisions (the University Council, the U.E.R. Council, the U.E.R. Director); and an approach to outside bodies (in the event that participation in the teaching were called for from sectors of the economy outside the university), etc.

ANNEX TO CHAPTER VI

A BRIEF GUIDE TO FACTOR ANALYSIS

I. REMINDER OF THE ULTIMATE GOAL

From the replies to the questionnaires, the team will be trying to pick out the most important of the various desires expressed by the respondents, so as to lay down the basic guidelines for a D.E.S. which would satisfy the wishes of the students and academic staff. This set of replies is the only information readily available from which these desires can be worked out. In its raw state, however, it comprises so much data as to be unusable except for comparisons between a few of the replies on one or other of the subjects or combinations of subjects - usual with some preconceived idea of what the outcome is likely to be! This is generally called model-building, implying some choice to guide the processing of the data. It is preferable to show the data in condensed form by trying to construct a scatter chart in accordance with universal criteria, from which to analyse the observations using the factor analysis technique. The respective distances between the dots on the chart are then such that the more similarity there has been in the replies, the smaller will be the distance between any two "reply points" - i.e. subject-points.

Axes of inertia (in the physics sense) can be derived from this chart in descending order of inertia, in the hope that these components will represent the tastes, and therefore consequently any differences in taste, among the subjects concerned.

II. ILLUSTRATION

Let us take the case of subjects (staff or students) confronted with the question to which (to make the example simple) there are broadly three possible kinds of reply (a "yes", a "no", or a "no reply").

The "yes" reply is coded 100, the "no" reply is coded 010, the "no reply" is coded 001 (it will be noticed that in this way the same importance is attributed to each possible reply (in the broad sense) and to each student). This can be tabulated as follows:

Replies J / I. Subjects	YES	NO	NO REPLY	
1				
. . .				
i	0	k(i,2)=1	0	k(i,.)=1 (the subject i replied NO to the question concerned)
. . .				
		$k(.,2) = \sum_{i}^{I} k(i,2)$		

this means that k(.,2) is the sum of the numbers in column 2)

This shows that k(.,2) characterises the magnitude of the "no" reply to the question in relation to the whole group of subjects, in the same way as k(i,.) characterises the magnitude of the subject i in relation to the three possible ways of replying. These values can be regarded as representing a profile.

We are interested in comparing these different profiles. For this purpose, we can first consider the scatter chart in the space R^J (here R^3) where I dots are obtained; the ith dot having as its co-ordinates $\left(\frac{f(i,j)}{f(i)}, j=1,\ldots,J\right)$ (see (1) below) which is weighted by the mass f(i) (which characterises its magnitude in the chart). One can naturally consider the scatter chart in F^I in which J points (here 3 points) are

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(1) $k = \sum_{j=1}^{J} \sum_{i=1}^{I} k(i,j)$ $\qquad f(i,j) = \frac{k(i,j)}{k}$

$f(i) = \sum_{j=1}^{J} \frac{k(i,j)}{k}$ $\qquad f(j) = \sum_{i=1}^{I} \frac{k(i,j)}{k}$

obtained, the jth having as co-ordinates

$\left(\frac{f(i,j)}{f(i)},\ i=1,\ldots,I\right)$; (analysis of one chart is sufficient to deduce the analysis of the other).

A closer definition of the proximity of the two points can thus be given: the value of the square of the distance chosen between two points i and i' in R^J is:

$$d^2(i,i') = \sum_{j=1}^{J} (f(j) \left(\left(\frac{f(i^\cdot, j^\cdot)}{f(i.)} - \frac{f(i', j)}{f(i')} \right) \right)^2$$

the formula in which the distance of χ^2 between two frequency laws is measured.

The main axes of inertia, i.e. the lines along which the dots are most inclined to spread out remain to be identified. A linear function is associated with each of the axes, this being the projection upon the particular axes which is referred to as the factor. The value of the factor at the observation i point on the chart will be the coefficient of i in the factor, i.e. a co-ordinate of i; the main axes are therefore taken as the basic vectors of a sub-space in which the whole set of i are represented. If, for example, two factors are derived, we obtain a representation of the scatter chart for i by projecting this chart upon the plane defined by the two factors. If the factors derived account for a considerable part of the inertia of the scatter chart, the two dimensional graphic representation of the i s, in the plane determined by the two factors concerned, will be a "good" visualisation of the i s in the space R^J .

Thus the analysis provides a configuration for the subjects as a whole, on the basis of what differentiates them most. Subtlety is required in interpreting these predominant desires; the thinking and opinions of individuals who, without necessarily having taken part in the technical side of the analysis, are familiar with the problems of the university world, must also be brought to bear; this interpretation being the goal referred to at the beginning of this annex.